



Canada's Amateur Radio Magazine La Revue des Radioamateurs Canadiens

SEPTEMBER / OCTOBER – SEPTEMBRE / OCTOBRE 2014

Winnipeg Amateur Radio Club's Field Day Station

RAC Simulated Emergency Test: Saturday, October 4



RAC President Geoff Bawden, VE4BAW participates in Field Day in Manitoba



Bryan Rawlings, VE3QN, presents his "Countdown to WRC-15"



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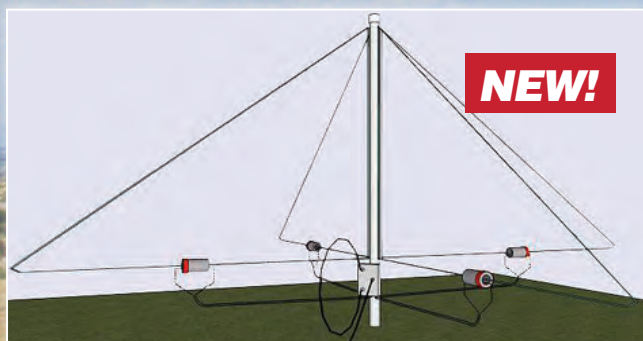
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TCA

The Canadian Amateur

SEPTEMBER & SEPTEMBRE
OCTOBER & OCTOBRE
2014

Editor / Rédacteur en chef

Alan Griffin
Email: tcamag@yahoo.ca

Advisors / Conseillers

Dave Green, VE3TLY
Frances Roach, VE3HKG
Gerry Trotter, VA3GLT
Norm Rashleigh, VE3LC
Mike Kelly, VE3FFK
Richard Ferch, VE3KI
Bill Karle, VE4KZ
Len Morgan, VE9MY
Ken Grant, VE3FIT
Bob Kavanagh, VE3OSZ

Translation / Traduction

Ante Laurijssen, VA2BBW
Alan Bulley, VA2UK
Serge Langlois, VE2AWR
Noël Marciel, VE2BR
René Levesque, VE2CNJ
Claude Lalande, VE2LCF

Technical Diagrams / Schémas technique

Stan Smith, VE3DDX

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720 Belfast Road,
Suite / Bureau 217
Ottawa, ON, Canada
K1G 0Z5
613-244-4367;
1-877-273-8304
tcamag@yahoo.ca
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"RAC President Geoff Bawden, VE4BAW checked out the Winnipeg Amateur Radio Club's Field Day station this year." (see page 47)

"In preparation for the next World Radiocommunication Conference in 2015 (WRC-15), we have been working diligently on an agenda item (Agenda Item 1.4) originally proposed by Cuba that seeks establishment of a secondary allocation to the Amateur Service somewhere in the range 5250 to 5450 kHz". (see page 10)

"The meeting received reports from officers concerning repeater coordination issues in the past year." (see page 64)

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WHAT'S NEW ON THE "COMMUNICATIONS" FRONT AT RAC?

Since the last issue of TCA we have continued to see a steady growth in our social media membership. I believe this to be a positive trend and it shows that more and more people are adapting and embracing this ever-growing worldwide concept. We also continue to frequently use our traditional communications tools such as the RAC Bulletin System, website news, TCA and The RAC Report.

I would like to encourage more people to subscribe to the RAC Bulletin System. I recently discovered the number of subscribers to be quite low. This is a very efficient and important tool if you want to receive (time sensitive) important news from the Amateur Radio community and RAC directly to your email inbox. If you require any assistance in setting it up, please contact RAC and we will help you with that process. It's easy to subscribe via the RAC website: <http://rac.eton.ca/racbullemail.htm>.

Do you have an electronic Club Newsletter? Send it to us if you would like to have it forwarded to our long list of Affiliated Clubs. You favourite Amateur photos, stories, achievements? Send them to us if you would like to be featured in our social media, newsletters or website.

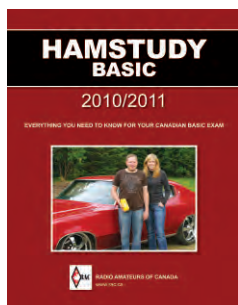
RAC Facebook: <https://www.facebook.com/groups/2624005010/> – RAC Twitter: @RACTWEETS

Vincent Charron, VA3GX/VE2HHH – RAC Director of Communications and Fundraising
720 Belfast Road, #217, Ottawa ON K1G 0Z5; Telephone: 1-877-273-8304; Email: raccomms@gmail.com

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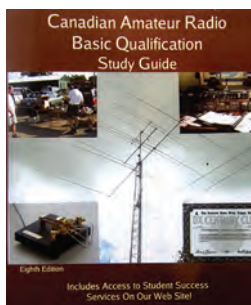
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HELP WANTED

The **Ontario East Section** is in need of a **Section Bulletin Manager** as soon as possible. This is a very important service for the entire Section – both for Clubs and ARES groups alike – since this is how the latest news information about Amateur Radio and/or Section announcements are produced and circulated in Ontario. Currently, the Ontario Bulletin Service Manager, Brad, VE3RHJ, needs someone to send bulletin contributions originating from this Section. Most of the other Ontario Sections have their own Section Bulletin Manager in place and we also need to have one for this Section.

I need someone who is reliable and available to write the Ontario East Section's weekly bulletin. The bulletin will then be sent to me for approval before being sent to the Ontario Bulletin Manager for inclusion for province-wide circulation. It will then be read over the air each week by club or ARES group nets by all appointed Official Bulletin Service readers.

Successful candidates should have experience writing media reports and also be an Amateur Radio enthusiast who likes to seek out items that are of interest to all Amateurs. If you would like to be of service in this capacity, please contact me directly and I will be happy to discuss this with you.

The Ontario East Section also has three **Assistant Section Manager (ASM)** positions that need to be filled by Affiliated Club volunteers who have leadership experience (such as Past Presidents), are self-motivated and who will act as the liaison between all clubs within the Ontario East Section and the Section Manager in one of three capacities.

Positions to be filled are: Affiliated Club Liaison Coordinator, Public Information Officer (Public Relations) and Technical Coordinator. These three Assistant Section Managers will then seek to work with each Affiliated Club within this Section. Each Affiliated Club will then need to identify three volunteers from within their club to act as liaison with the three above mentioned ASMs. These individuals will work under the title of: Affiliated Club Liaison, Club Public Information Officer and Club Technical Liaison. This will bring into place a much-needed communications channel from Affiliated Clubs to the RAC Section and vice versa to enable work on any issues that may arise.

For more information please search for “VPFSC BN 4” on the RAC website and read page 4 of the following document: “VPFSC BN 4 February 14, 2011 Briefing Note – Development of new RAC Field Services Organization”.

If you have any questions about any of the above positions, please do not hesitate to contact me directly. I can be reached at ve3ipc@rac.ca or at 613-679-4474.

Michael Hickey, VE3IPC
Ontario East Section Manager

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There are limits and restrictions for use of the Outgoing QSL Bureau. For more information, surcharges and card sorting details, visit <http://www.rac.ca> or <http://www.magma.ca/~ve3exy/bureau.html>.

The **Incoming QSL Bureau** service is a user-pay system, using one of four methods – (A) envelopes (B) credits (C) labels or (D) combination credit with labels – to get cards to you. For more information on the incoming system visit www.rac.ca. (***Note: Method B is preferred**).

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QSL Manager
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VE4 Bureau (B)

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VE5 Bureau (B)

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VE6/VA6 Bureau (B)

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VE7 – VA7 Bureau (B)

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Rick Burke, VO1SA
Box 23099, Churchill Square
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Hugh Henderson, VY1HH
Box 33062
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Silent Keys – In Memoriam

*With regret, we record the passing of these Amateur Radio operators.
Nous avons le regret de vous annoncer le décès des radioamateurs suivants.*

VA3DNA – Dale Buchanan, of Pembroke, ON, at age 46, on July 5, 2014.
VA3DYF – Daniel Fox, of Amherstburg, ON, at age 65, on June 4, 2014.
VA3NMI – Scott Gregory, of Mississauga, ON, at age 43, on June 10, 2014.
VA3RRN – Bob Rollins, of Sault Ste Marie, ON, at age 72, on December 29, 2013.
VE1AJV – Clayton Demmings, of Fredericton, NB, at age 84 on June 29, 2014.
VE1BHL – Malcolm MacQuarrie, of Truro, NS, at age 85, on May 15, 2014.
VE1ERN – Ernie McMurrer, of Aylesford, NS, at age 72, on May 19, 2014.
VE1KE – Floyd Everett, of Victoria Corner, NB, on June 10, 2014.
VE1PN – Harry Hillyard, of Halifax/Dartmouth, NS, at age 86, on June 23, 2014.
VE1WFG – Bill Gidney, of Marshalltown, NS, at age 75, on June 15, 2014.
VE2ASN – Bob Washer, of St. Sauveur, QC, at age 82, on July 8, 2014.
VE2BYX Gilles Guertin, of Granby, QC, at age 73, on May 30, 2014.
VE2QQ – Vern Ikeda (VE2MBS) of Pointe Claire, QC, at age 54, on July 14, 2014.
VE3BSQ – Jerry Parish, of Brockville, ON, on June 21, 2014.
VE3JCT – Chuck Taylor, of Ottawa, ON, at age 86, on August 1, 2013.
VE3KHN – Donald Meaker, of Mississauga, ON, at age 76, on June 18, 2014.
VE3LXB – Len Blizzard, of Scarborough, ON, at age 80, on June 20, 2014.
VE3SV – Bob Boyd, of Kingston, ON, at age 96, on July 18, 2014.
VE3UZR – Mike Konaka, of Newmarket, ON, at age 64, on July 7, 2013.
VE4NME – Gene Rondeau, of Selkirk, MB, at age 71, on June 28, 2014.
VE4VW – Val Wagner, of Winnipeg, MB, at age 52, on July 15, 2014.
VE5YJ – Ben Cruise, of Moose Jaw, SK, at age 96, on June 24, 2014.
VE7BIK – Ken Buhr, of West Vancouver, BC, on June 29, 2014.
VE7BS – Bob Eldridge, of Pemberton, BC, at age 93, on July 15, 2014.
VE7CZN – Jim Spencer, of Salt Spring Island, BC, at age 84, on June 9, 2014.
VE7GR – Earl Henstridge, of Port Alberni, BC, at age 80, on July 7, 2014.
VE7RIV Ron Verrall, of Victoria, BC, at age 72, on April 21, 2014.
VE7SE – Michael Walton, of Maple Ridge, BC, at age 69, on March 31, 2013.

*Note: In the above list an * indicates that a call sign has been reissued.*

The list of Silent Keys is prepared by volunteers at RAC Headquarters at <rachq@rac.ca>.

BOB ELDRIDGE, VE7BS – SILENT KEY

Radio Amateurs of Canada is sad to announce the passing of Bob Eldridge, VE7BS, on Tuesday, July 15 at Lion's Gate Hospital in North Vancouver, British Columbia after a short stay. He was 93 years of age.

Bob was the long-time columnist of "QUA: A Topical Digest" which ran for the past 24 years in The Canadian Amateur magazine. TCA Editor Alan Griffin had this to say: "I had the privilege of working with Bob for over 15 years. His was the first column that I would receive every issue and I don't remember him missing any columns."

Bob was a member of the DX and Topband community. A tribute article will appear in the November-December 2014 TCA.

Bob is survived by daughter Anne Eldridge and a granddaughter. He also has two sisters who live in England. Messages of condolence may be left at anne.c.eldridge@gmail.com.

VERN IKEDA, VE2QQ – SILENT KEY

It is with deep sadness that Radio Amateurs of Canada announce the passing of Vern Ikeda, VE2QQ, on Monday, July 14 at Lakeshore General Hospital at age 54. Vern was very active with the Montreal ARC and was a long-time dedicated RAC volunteer who was instrumental in the publishing of RAC News, Bulletins and Blogs.

Vern was active in the Amateur Radio community as VE2MBS and VE2QQ and was equally passionate about the railways and fire service where he put his skills as a photographer to good use. He loved to share his knowledge and taught and mentored many. He was the son of the late Michiko (nee Tsunokawa) and Howard Ikeda, older brother of Gayle (Gerry Tipold) and Maureen Ikeda (David Harman) and the proud uncle of Emma, Brian, Glenn and Cady.

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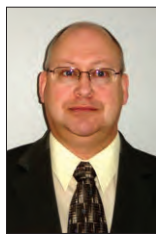
Geoff Bawden, VE4BAW
85 Barrington Avenue
Winnipeg, MB R2M 2A6
Tel. 204-257-1414
Email: ve4baw@rac.ca

Note: please copy racgm@rac.ca
on all emails to VE4BAW.



VICE-PRESIDENT AND REGULATORY AFFAIRS OFFICER

Glenn MacDonell, VE3XRA
2047 Chalmers Road
Ottawa, ON K1H 6K4
Tel. 613-523-4333
Email: ve3xra@rac.ca



CHIEF INFORMATION AND TECHNOLOGY OFFICER

Paul Burggraaf, VO1PRB
51 Greenspond Drive
St. John's, NL A1E 5Z9
Tel. 709-745-1999
Email: vo1prb@rac.ca



ATLANTIC
Everett Price, VO1DK
6 Virginia Road
St John's, NL A1A 3A8
Tel. 709-738-3508
Email: vo1dk@rac.ca



MIDWEST
Derek Hay, VE4HAY
51 St. Hilaire Place
Winnipeg MB R2J 4B5
Tel. 204-257-1420
Email: ve4hay@rac.ca

DEPUTY DIRECTORS

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ONTARIO NORTH/EAST
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ONTARIO SOUTH
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Stan Leschinsky, VE3TW
(Greater Toronto Area)
Gordon Moogk, VE3DBP
(Grey-Bruce)



ONTARIO NORTH/EAST
Bill Unger, VE3XT
165 Ridgcrest Road
Thunder Bay, ON P7B 7A1
Tel. 807-344-1848
Email: ve3xt@rac.ca



ALBERTA/NWT/NU
J. T. (Mitch) Mitchell, VE6OH
10438-139 Street
Edmonton, AB T5N 2K5
Tel. 780-446-8958
Email: ve6oh@rac.ca



HONOURARY LEGAL COUNSEL
Marcel D. Mongeon, VA3DDD
Suite 374
3-35 Stone Church Road
Ancaster ON L9K 1S4
Tel. 905-390-1818
Email: va3ddd@rac.ca



CORPORATE SECRETARY
Alvin (Al) M. Masse, VE3CWP
440 Maple Avenue
LaSalle, ON N9J 1P4
Tel. 519-734-0026
Email: ve3cwp@mnsi.net



**INTERNATIONAL AFFAIRS
OFFICER**
George Gorsline, VE3YV
118 MacPherson Avenue
Toronto, ON M5R 1W8
Tel. 416-921-4214
Email: ve3yv@rac.ca



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TREASURER
Dorothy Brown, VA7DBR
12542 24A Avenue
Surrey, BC V4A 8H9
Email: dorothebrown@shaw.ca



BRITISH COLUMBIA/YUKON
William (Bill) Gipps,
VE7ISV/VE7XS
9362 - 206A Street
Langley, BC V1M 2W6
Tel. 604-328-0111 Mobile
Email: Bill.Gipps@ideasmcms.com



ONTARIO SOUTH
Rod Hardman, VE3RHF
1416 Livingston Road
Oakville, ON L6H 3G4
Email: ve3rhf@gmail.com

RAC SECTION MANAGERS

ALBERTA
Garry Jacobs, VE6CIA
45 Selkirk Blvd.
Red Deer, AB T4N 0G4
ve6cia@rac.ca

BRITISH COLUMBIA/YUKON
Paul Giffin, VA7MPG
1740 Tashtego Crescent
Gabriola Island, BC V0R 1X5
guppy1@shaw.ca

MANITOBA
Jan Schippers, VE4JS
202 Sadler Avenue
Winnipeg, MB R2M 1P3
ve4js@rac.ca

MARITIMES
Craig Seaboyer, VE1DSS
136 Ohio Lake Road, RR 1
Antigonish, NS B2G 2K8
cseaboye@stfx.ca

**NEWFOUNDLAND-
LABRADOR**
Vacant

ONTARIO NORTH
Allan Boyd, VE3AJB
27 Red Mill Road, Box 208
Little Current, ON P0P 1K0
ve3ajb@vianet.ca

ONTARIO SOUTH
Ian Snow, VA3QT
42 Eileen Drive
Barrie, ON L4N 4L6
va3qt4@gmail.com

ONTARIO EAST
Michael Hickey, VE3IPC
2768 Chartrand Road
Lefrivre, ON K0B 1J0
ve3ipc@gmail.com

ONTARIO GTA
George Duffield, VE3WKJ
49 Ridgehill Drive
Brampton, ON L6Y 2C3
ve3wkj@sympatico.ca

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SASKATCHEWAN
Barry MacKenzie, VE5TRF
1001 - 12th Avenue SW
Moose Jaw, SK S6H 6N2
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Section Reports.



QUEBEC
Sheldon Werner, VA2SH/VA6SH
4225 Place Sainte-Helene
Laval, QC H7W 1P3
Tel. 450-973-3418
Email: va2sh@rac.ca

A MESSAGE FROM THE PRESIDENT / UN MESSAGE DU PRÉSIDENT



Geoff Bawden, VE4BAW
204-295-0714
ve4baw@rac.ca

Report to RAC Members at the Annual General Meeting Rapport aux membres de RAC à l'Assemblée générale annuelle

**New Westminster,
British Columbia – July 27, 2014**

It is with pleasure that I make my report to our members regarding the performance of Radio Amateurs of Canada in 2013. I will also touch upon some of our activities in 2014.

I want to thank our hosts (Bill, Paul, the Orca DXCC club and others in the Pacific Northwest DX Convention).

It is a pleasure to return to British Columbia and see some old friends and hopefully make some new ones.

Those that have been following my Presidential Reports in *The Canadian Amateur*, and our reports to the Annual General Meeting since 2010, will have noted the financial theme that has tended to dominate the conversation during the past few years.

For the third year in a row I am pleased to report that RAC has finished in the black. Last year, I reported that RAC returned to solvency in 2012. RAC was again solvent in 2013 and we are on track for 2014.

Every year, a summary of our fiscal position is published in *The Canadian Amateur*. This has been true for decades. Those reports clearly demonstrated the deplorable state of our finances and should have served as a warning bell to members that the organization was in deep trouble. The state of the finances by the end of 2009 was such that the organization had only two choices – shut down in as orderly fashion as possible, or radically cut spending and increase revenues in order to end our habitual deficit spending.

The Board chose not to shut down RAC, but to accept that change was required and that the then status quo was not acceptable. The presence of the hangman focuses the mind and readers of Presidential Reports in TCA and attendees at AGMs from 2010 to 2013 will know that, starting in 2010, RAC's key goals were:

- Return RAC to balanced budgets and solvency
- Membership stabilization

This period was termed "Financial Recovery".

These goals were realized by mid-2012 and it was necessary to revisit our key strategic objectives. It took a great deal of work and a singular focus to end our financial woes. Thanks to the hard work of volunteers who provided "hidden subsidies" to RAC; Directors and Executive and other volunteers supported the organization through their work and money from their own pockets.

The Administration and Finance Committee was set up to meet monthly and reviewed all expenditures, and identified significant efficiencies. Our members recognized and accepted that changes in the membership rates were necessary and the new Maple Leaf Membership was developed in late 2011. We currently we have over 340 Maple Leaf Members. Our new basic electronic membership was brought in during January of 2012.

It was welcome news that we had, at least for the moment, conquered our financial nemesis. This meant that the organization could spend time focusing on the core business of RAC, and not be distracted by the fiscal hangman.

New Westminster, Colombie-Britannique – 27 juillet 2014

C'est avec plaisir que je présente mon rapport à nos membres en regard de la performance de Radio Amateurs du Canada en 2013. J'évoquerai également quelques unes de nos activités de 2014.

Je tiens à remercier nos hôtes (Bill, Paul, l'Orca DXCC club et d'autres de la Convention Pacific Northwest DX).

C'est un plaisir de revenir en Colombie-Britannique, de revoir de vieux amis et, je l'espère, de m'en faire de nouveaux.

Ceux qui ont lu mes rapports présidentiels dans *The Canadian Amateur* (TCA), et nos rapports de réunions générales annuelles depuis 2010, auront noté que le sujet des finances avait tendance à dominer la conversation au cours des dernières années.

Pour la troisième année de suite, il me fait plaisir de vous annoncer que RAC a écrit son dernier rapport à l'encre noire. L'année dernière, je vous annonçais que RAC était revenu solvable en 2012. RAC l'était aussi en 2013 et est sur la bonne voie pour 2014.

Chaque année, un résumé de notre situation financière est publié dans *The Canadian Amateur* (TCA). C'est le cas depuis des dizaines d'années. Ces rapports, clairement nous démontraient l'état déplorable de nos finances et auraient dû sonner l'alarme chez les membres à l'effet que leur organisation se heurtait à de profondes difficultés. L'état des finances à la fin de 2009 était tel que l'organisation n'avait plus que deux choix – mettre fin à ses activités de façon aussi ordonnée que possible, ou couper radicalement dans ses dépenses et accroître ses revenus dans le but de mettre fin aux déficits successifs habituels.

Le Conseil d'administration a choisi de ne pas fermer RAC, mais plutôt de reconnaître que le statut quo n'était plus acceptable et qu'il fallait effectuer les changements nécessaires. Le « bourreau financier » nous a forcé à la réflexion, et les lecteurs des rapports du président dans TCA, tout comme les participants aux assemblées générales de 2010 à 2013, allaient apprendre que les principaux objectifs de RAC seraient :

- Retour aux budgets équilibrés et à la solvabilité
- Stabilisation du membership

Cette période s'intitulait "Restauration financière".

Ces objectifs ont été atteints à la mi-2012 et il devenait nécessaire de revoir nos principaux objectifs stratégiques. Il a fallu beaucoup de travail et de détermination pour mettre fin à nos inquiétudes financières. Merci pour le travail difficile de nos bénévoles qui ont discrètement subventionnés RAC. Les directeurs et les membres de l'Exécutif et d'autres bénévoles ont soutenu l'organisation de leur travail et de leur propre argent.

Un Comité des finances et de l'administration a été mis sur pied. Il devait se réunir mensuellement afin de surveiller toutes les dépenses et d'en vérifier l'efficacité. Nos membres ont reconnu et accepté la nécessité d'effectuer ces changements, et que le membership de Maple Leaf fusse accru à la fin de 2011. Maple Leaf compte maintenant plus de 340 membres. Notre nouvelle base de données pour le « membership électronique » est entrée en fonction en janvier 2012.

C'est une bonne nouvelle que nous ayons, au moins pour le moment, vaincu notre démon financier. Cela signifie que l'organisation peut maintenant se concentrer davantage sur la véritable fonction de RAC, et ne plus se laisser distraire par le « bourreau financier ».

En février 2013, nous nous sommes rencontrés pour une session de planification dans le but de fixer de nouveaux objectifs.

Nous avons établi les objectifs suivants pour la période de 2013 à 2018 :

- Continuer de faire la promotion et de faciliter l'accès au radioamateurisme et à RAC

In February of 2013, we met for a planning session to develop new objectives.

We established the following objectives for 2013 to 2018:

- Continue to facilitate and promote Amateur Radio and RAC
- Increase public support for Amateur Radio
- Increase political support for Amateur Radio
- Increase RAC influence on regulatory agencies (local, provincial, national and international)

This period we have termed "Grow, Thrive and Influence".

In particular, we agreed to do the following over the period 2013 to 2015:

- Develop publication and communications supports to clubs, Amateurs and the public, in order to grow new Amateurs, increase RAC membership and influence public and political opinion
- End "hidden subsidies"; RAC to stand as a financially viable organization
- Increase RAC resource base (grow resources)
- Be prepared to pay for mission critical functions in order to increase accountability and the quality of outcomes

Concrete action included hiring a Director of Communications and Fundraising to help facilitate the achievement of these goals.

We established direct communications to our Affiliated Clubs and Maple Leaf Operator Members (MLOM). Both of these areas have been growth areas for RAC, increasing in numbers year over year since 2010 for the Affiliated Clubs and since 2011 for MLOM (the year of its inception).

We recognized the need to increase the number of revenue sources from our traditional single line of income (membership fees) to multiple streams. This is why we are developing relationships with a range of businesses. The alternative is to have constant pressure to increase our dues.

There were many accomplishments in 2013:

- RAC worked with Industry Canada, sister societies such as the ARRL, RSGB and of course with IARU on the international file. Canada has a high profile internationally and is greatly respected. RAC is the second largest society in the Americas and is one of the largest in the world.
- We continue to work with Industry Canada (IC) to obtain a 60m allocation for hams in Canada (this reached fruition in 2014).
- Work started on preparing for World Radio Conference 2015, where we will seek a worldwide allocation for 60m.
- Work continued with IC on activating the allocation for 472 to 479 kHz, agreed to at the World Radio Conference 2012 (this reached fruition in 2014).
- RAC introduced our new basic e-membership in January 2013.
- In late 2013, we introduced a coupon system for newly certified hams. The Amateur Radio Service Centre mails out the RAC introductory letter and coupon allowing a free one-year electronic membership in RAC. We will not really know the results of this until late 2015 but we can start to evaluate this program later this year.

We started on the rebuild of our website to a newer technology that will allow a distributed update of the site. Historically, any change had to be done by one person and that creates quite a barrier to quick updates as well as a tough workload. The new website was made available, although it is still under construction at wp.rac.ca.

Radio Amateurs of Canada was pleased to announce the granting of three academic scholarships and one community grant in 2013. The individual recipients are: Ms. Pauly Mulles, VE3PJM, who is attending Carleton University; Mr. Jason Deglint, VE7TJD, who is attending the University of Victoria; and Mr. Liam Bindle, VE5LRB, who is attending the University of Saskatchewan.

- Accroître le soutien public pour la radio amateur
- Accroître le soutien politique pour la radio amateur
- Accroître l'influence de RAC sur les agences de règlements locales, provinciales, fédérales et internationales)

Cette période a pris le nom de "Croissance, Réussite, Influence".

De façon particulière, nous sommes convenus de suivre les points d'action suivants durant la période de 2013 à 2015 :

- Développer des activités de soutien en matière de publication et de communication pour les clubs, les amateurs et le public, dans le but de recruter de nouveaux amateurs, d'accroître le membership de RAC et d'influencer le public et l'opinion politique
- Mettre fin aux "subventions cachées"; RAC doit pouvoir fonctionner comme une organisation financièrement stable.
- Élargir la base des sources de revenu de RAC (croissance des ressources)
- Se préparer à payer pour des missions critiques dans le but d'en augmenter la crédibilité (responsabilité) et la qualité des extrants

L'action concrète signifie aussi d'embaucher un directeur des communications et de levées de fonds pour aider à la réalisation de ces objectifs.

Nous communiquons directement avec nos clubs affiliés et membres du Maple Leaf Operator (MLOM). Ces deux entités sont profitables à RAC, en augmentant leurs nombres année après année depuis 2010, pour les clubs affiliés, et depuis 2011 pour le MLOM (l'année de sa formation).

Nous sommes conscients du besoin d'augmenter nos sources de revenus; depuis notre unique source habituelle (les cartes de membres) vers plusieurs autres sources. Voilà pourquoi nous développons nos relations d'affaires avec plusieurs entreprises. L'alternative serait d'exercer une pression constante pour augmenter nos revenus.

Il y a eu plusieurs réalisations en 2013 :

- RAC travaille avec plusieurs sociétés fonctionnant en périphérie d'Industrie Canada telles que ARRL, RSGB et, bien sûr, UIRA (IARU) à l'internationale. Le Canada détient un profil international élevé et est très respecté. RAC est la deuxième plus grande société du genre dans les Amériques et une des plus grandes au monde.
- Nous poursuivons notre travail avec Industrie Canada (IC) pour obtenir l'allocation du 60 mètres pour les amateurs du Canada (et en obtenir la jouissance en 2014).
- Le travail a débuté en vue de la préparation de la World Radio Conference de 2015. Nous y rechercherons une allocation mondiale pour le 60 mètres.
- Le travail se poursuit avec IC pour activer l'allocation des fréquences de 472 à 479 kHz, déjà acceptées à la World Radio Conference de 2012 (jouissance en 2014).
- RAC a lancé en janvier 2013 notre nouvelle base de données pour le membership électronique.
- À la fin de 2013, nous avons inauguré un système de coupons pour les nouveaux amateurs agréés. Le centre de services radioamateur a posté la lettre et le coupon de présentation de RAC permettant une année gratuite de membership électronique avec RAC. Nous ne connaissons pas les résultats de ce procédé avant tard en 2015, mais nous pourrions débiter l'évaluation de ce programme plus tard cette année.

Nous avons débuté la reconstruction de notre site web selon une nouvelle technologie qui permettra une mise à niveau partagée du site. Historiquement, tout changement devait être fait par une seule personne, et cela ne permettait pas une mise à niveau rapide tout en exigeant une somme de travail considérable. Le nouveau site est déjà accessible, bien qu'il soit encore en construction à : wp.rac.ca.

Each of these young Amateurs received a \$500 academic scholarship to assist their further studies in Electrical Engineering. In their application each one stated how being an Amateur is a good match to their schooling and provides hands-on ability to complement their academic studies.

Shaftesbury High School in Winnipeg received a \$500 community grant. Shaftesbury High School students have launched APRS-equipped balloons to the edge of space and are working to build the only permanent Amateur Radio ARISS Telebridge Station in Canada, under the guidance of Mr. Robert Striemer, VE4SHS.

Look for more scholarships to be granted in 2014. In fact we have put out a call for submissions with a closing date of July 30.

According to Industry Canada there are more hams than ever, yet too many of the public view hams as irrelevant and obsolete. If we don't influence the public, we will not influence the politicians and then we won't be able to influence the regulators. We must continually point out to the public the real world cases of where hams have assisted their communities, especially during disasters.

Significant real world examples have occurred over the last five years in Newfoundland, Manitoba and Alberta. A recent BC example is the support provided during the Smith Creek Fire by the Kelowna Amateur Radio Club. BC also has a significant number of Amateurs supporting Search and Rescue in the province. When I came to BC in late 2013 I was advised by Emergency Management BC (EMBC) officials that more people get lost in BC than anywhere else in Canada.

The BC Emergency Management agency has recently engaged in a consultation on Amateur Radio communication management during a major earthquake. RAC has submitted a response to the questions asked in the consultation, but also included a previously submitted document which made recommendations to EMBC, regarding Amateur training and management.

Of special note for 2013; hams throughout Alberta came together to assist their communities and province. We should be proud of how our members in Alberta responded to that need in their province. Well done.

No matter where you are in Canada, hams are ready to help their communities and we need to profile real world examples in order to garner public support.

Several volunteers moved on after serving their fellow hams well. They "retired" from RAC after long careers.

Ian MacFarquhar, VE9IM, long-serving Executive member; twice was Acting President after the resignation of a RAC President (most recently in 2009), and was instrumental in setting up the new insurance program after our previous insurer dropped us.

Len Morgan, VE9MY, former Director and Deputy Director, and his wife Linda Friars, VE9GLF, who was instrumental in administering the insurance program.

Doug Mercer, VO1DM, who served as Chief Field Services Officer for two terms.

Having honourably served their terms they are taking a well-deserved break from the hard work, and often thankless work of a RAC volunteer.

I would be remiss if I did not mention the award to Jeff Dovyak, VE4MBQ, Emergency Coordinator for Winnipeg. He was nominated by his peers for his leadership in Winnipeg ARES and his leadership through many, many floods in the Red River Valley.

The following are a few items that we are currently dealing with: the Industry Canada Minister recently directed his department to undertake a public consultation with regards to antenna height and placement. RAC responded to the consultation in writing at the recent Canadian Amateur Radio Advisory Board (CARAB). It would appear from a review of the "new" policy that Amateurs will maintain our current 15m exemption.

To support of our new regional structure a subcommittee chaired by Paul Giffin, VE7IPM/VA7MPG, met in Winnipeg to hammer out a

Radio Amateurs du Canada était heureux d'annoncer la remise de trois bourses académiques et une bourse communautaire en 2013. Les récipiendaires sont : Paulyn Mulles, VE3PJM, qui étudie à l'Université Carleton; Jason Deglint, VE7TJD, qui va à l'Université de Victoria; et Liam Bindle, VE5LRB, qui fréquente l'Université de Saskatchewan.

Chacun de ces jeunes amateurs a reçu une bourse de 500 \$ pour l'aider dans ses études en génie électrique. Dans leur demande, chacun a déclaré que d'être amateur se marie bien à leurs études et leur fournit un atout complémentaire utile à leurs études académiques.

Shaftesbury High School à Winnipeg a reçu une bourse communautaire de 500 \$. Les étudiants de Shaftesbury High School ont lancé des ballons avec APRS jusqu'à la limite de l'espace et travaille à construire la seule station permanente radioamateur de ARISS Telebridge au Canada, sous la surveillance de Robert Striemer, VE4SHS.

Nous désirons offrir plus de bourses scolaires en 2014. Dans les faits, nous avons lancé un appel pour des soumissions jusqu'à la date limite du 30 juillet.

Selon Industrie Canada il y a plus d'amateurs que jamais, mais trop de personnes dans le public voient le radioamateurisme comme dépassé et obsolète. Si nous n'influons pas le public, nous ne pourrions influencer les politiciens ni les responsables de la réglementation. Nous devons continuellement porter à l'attention du public les vrais cas, partout dans le monde, à l'occasion desquels des amateurs ont aidé leurs communautés, particulièrement lors de désastres.

Plusieurs exemples significatifs de partout ont été observés au cours des cinq dernières années à Terre-Neuve, Manitoba et Alberta. Un exemple récent en C.-B. Est le soutien accordé durant le feu de Smith Creek par le club Kelowna Amateur Radio. La C.-B. Possède aussi un nombre significatif d'amateurs dévoués à la recherche et au sauvetage dans toute la province. Quand je suis arrivé en C.-B. À la fin de 2013, j'ai été averti par les responsables de l'Emergency Management BC (EMBC) que plus de personnes se perdent en C.-B. que n'importe où ailleurs au Canada.

L'agence BC Emergency Management a récemment entrepris une consultation sur la gestion des communications radioamateurs durant un tremblement de terre majeur. RAC a répondu aux questions demandées lors de la consultation, mais a soumis au préalable un document de recommandations au EMBC, à propos de la formation des amateurs et de leur gestion.

Une note spéciale pour 2013. Les amateurs d'Alberta se sont donnés la main pour aider leurs communautés et leur province. Nous pouvons être fiers de la façon dont nos membres en Alberta ont répondu aux besoins de leur province. Du travail bien fait.

Peu importe où vous êtes au Canada, les amateurs sont prêts à aider leurs communautés. Nous devons montrer des exemples de notre véritable travail afin d'obtenir le soutien du public.

Plusieurs bénévoles se sont retirés après s'être dépensés pour leurs compagnons amateurs. Ils prennent leur retraite de RAC après une longue carrière.

Ian MacFarquhar, VE9IM, longtemps membre de l'Exécutif; deux fois président après la résignation d'un président de RAC démissionnaire (plus récemment en 2009), et a été utilisé pour mettre sur pied le nouveau programme d'assurance après que le précédent assureur se fusse retiré.

Len Morgan, VE9MY, ancien directeur et assistant directeur, et son épouse Linda Friars, VE9GLF, qui se sont occupés de l'administration du programme d'assurance.

Doug Mercer, VO1DM, qui a été responsable en chef des Services sur le terrain (extérieurs) pour deux termes.

Après avoir complété honorairement leurs mandats, ils prennent une pause bien méritée pour le travail difficile et souvent sans remerciements de bénévoles au service de RAC.



Dana Shtun, VE3DS
14 Ashwood Crescent
Toronto, ON M9A 1Z3
E: ve3dss@rac.ca
W: www.qsl.net/ve3dss

SPORADIC E

Well once again this summer the Es has been sporadic.

We have had a couple of double-hop openings to W6-land here plus the usual single hop to the Midwest, Gulf States and Manitoba, but not much else.

I did work EA8DBM on June 9 and July 5 and CU1EZ on July 5.

In addition we worked one of the world cup special events stations in Brazil ZY1RR on June 18. They were in for a long time CQing with no takers as well.

That same day we also worked K9EL/FS with good signals both ways.

It's great to hear so many VE stations on the band now keeping Canada on the DX map for the magic band!

Welcome to all the new folks!

SIX METRES AND DOWN

NORTH AMERICA HEARD IN EUROPE ON 144 MHZ!

The group out in Newfoundland trying to work across the pond on 144 MHz were heard and copied by G4SWX in GN37 and PE1PQX on 144.155 MHz using FSK144.

The 30-metre long rope yagi pointed at Europe at VC1T Pouch Cove, Newfoundland.



John, G4SWX, over the 3,828 kilometre path, made the first report on July 6 at 1341, according to Alphonse Penny. This was shortly after the guys got the station up and running!

Six was open at that time in Europe and North America. PE1PQX reported in on July 7 at 1252 UTC.

Sadly, as of July 11, the gang went QRT without making a two-way across the Atlantic this time. However, no one said this would be easy, and in the almost 70 years since we were allocated the 144 to 148 MHz band it has not been done.

G4SWX sending signal reports to VC1T from the UK in July 2014.



We thank the team for their valiant and professional effort and hope they will return next year for another attempt! We look forward to a complete update from the team in a future TCA.

VE3IKV/M WORKS #50 FROM THE MOBILE

Peter, VE3IKV, reported working his 50th country from the “buggy” with an amazing contact to IS0GQX while driving on highway 401.

Pete pulled off and worked him on CW on June 30 at 1900 UTC, east of Cobourg, Ontario. Pete notes that the grid JM49 was the farthest he has worked.

There seems to be a “magic” spot out there on the 401 for Europe. Might be worth a scouting trip for a contest site... hmm... Congrats Pete!



TRANSPOLAR 50 MHZ DX

There have been some interesting DX worked in July 2014 on 50 MHz. Naturally none of it from my QTH, but what the heck... This entails DX worked in the northern polar regions that are in daylight for very long periods.

On July 3/4, Bo, OX3LX, worked five Japanese stations on 6 metres over the polar path. Included were JE1BMJ, JA1UAV, JA5ACQ, JG2AJK and JR2HCB. Signals were very good and surprisingly long lasting over that path. Contacts were completed between 2315 and 0015 UTC.

On July 4, JE1BMJ worked into SM at 0608 UTC. Han comments that the openings to North America have not been as widespread as other years. This was during the second week of July so I guess we will have to wait to see what next summer brings.

On July 8, John, VE7DAY, worked EA8DBM for a nice catch over the pole. Then on July 9, in BP51, KL7KY worked SV2JAO over the pole, early in the morning at 1100 UTC! In addition, OH1XX was worked and ER1SS and IK4DRY reported reception, longpath.

VY0HL reports that he will be going QRT from Nunavut. Larry is retiring and leaving his northern outpost. We will miss his signals floating down our way and, sadly, the beacon VY0SNO will be QRT as well according to Larry. Meanwhile all through July, reception of Russian and Ukrainian 49 MHz TV has been pretty regular, even here in Toronto! Signal peak is around 15 to 20 degrees and are in for one to two hours.

MICROWAVE UPDATE

Rochester, New York – October 24- 25

Just a reminder that the Rochester VHF Group is sponsoring the Microwave Update (MUD) Conference this year.

For registration information go to: <http://www.rvhfg.org/mud2014/>

Rochester, New York is easily accessible from our side of the border so lets have a great Canadian turn out, eh?

ARRL JUNE VHF CONTEST

The contest season should be winding down with the fall Sprints by the time you read this. The ARRL's annual June VHF Contest was pretty good this year with lots of activity above 50 MHz. We were fortunate to make some great long-haul 902 and 222 MHz contacts during the contest, and it was just nice to have the bands 50 to 1296 working all at the same time here – the first time in about 15 years that we have been able to do this.

I hope to have 2304 up and running by the time you read this, and hope to make some contacts there as well.

Well that's it for now. More to report in the next issue.

Let's see what 2015 brings eh?– 73, Dana, VE3KU/VE3DSS



RAC PRESIDENT'S MESSAGE TO THE AGM

– continued from page 7

framework for competencies for the positions established in that reorganization. In professional organizations, significant reorganizations take at least two years to settle out. This is a volunteer organization and everything we do takes longer, no matter what the file we are managing.

A decision that needs to be made shortly is whether or not to move to a virtual office; our lease in Ottawa is up in the first quarter of 2015 and the office is too large for our current needs, and if we downsized we would face costs associated with leasehold improvements. In 2010, we started looking at a virtual office from a point of view to save money. Now we are looking at it from the viewpoint of enhancing services.

Our committees, which are across Canada are not well supported – antenna, band planning committees, field organization – nor well connected or information adequately archived. Office service is based upon the Eastern Time Zone, which is awkward when you are far to the west or east in Canada. Funds saved from the lease could be used to support the technologies required. Having said that, no decision has yet been made, but the decision must be made soon as 2015 will arrive before we know it.

We are continuing to develop relationships with Amateur Radio related entities such as RFinder – a software company that produces an electronic repeater directory with remote control functionality – and with Kenwood: two new corporate sponsors.

Foreign observers have made a number of observations to me: one is that there is often conflict between clubs in Canada; my friends here in BC tell me that this is not true in Beautiful British Columbia.

Conflict wastes time and creates an emotional engagement of the wrong kind. Conflict drives good volunteers away and can lead to mixed signals to regulators and the public. However, it is what it is. Perhaps what RAC needs to do is hire or practise mediation.

A second observation is that – and this was an observation from a very well informed foreign observer – “Canadian hams do not want a strong national society”. This, if true, will be the most fundamentally damaging issue in creating a strong representative organization who will be able to protect Amateur Radio. We, all Amateur operators, need to pull in the same direction to both protect what we have and grow our frequency allocations.

Next year's AGM: we will be in Saskatchewan. RAC has been invited and has accepted an invitation by the Meewasin Amateur Radio Club for our AGM to be held in conjunction with their Hamfest. More details will be made available in the future.

Geoff Bawden, VE4BAW – RAC President and Chair

Membership Numbers

December 31, 2013	4551
December 31, 2012	4631
December 31, 2011	4630
Current – July 2014	4728
Maple Leaf	324
Coupons (new Amateurs)	240

COUNTDOWN TO THE WORLD RADIOCOMMUNICATION CONFERENCE 2015

Bryan Rawlings, VE3QN
RAC Special Advisor – WRC-15

Canadian Amateurs were rightly pleased earlier this year when Industry Canada authorized the use of five spot frequencies in the 60m band.

Canada thus joined approximately 50 other countries who have authorized Amateur access on one basis or another to 5 MHz frequencies.

None of these authorizations are provided for in the International Table of Frequency Allocations.

All are made possible by an exception clause in the Radio Regulations which permits member countries to make domestic exceptions providing no harm is done to the primary users.

Amateurs have been seeking an internationally-sanctioned allocation near 5 MHz for many years. We have argued that between our 80m and 40m bands there often arises a propagation gap that could impede disaster-relief and emergency traffic over certain distances at certain times.

In preparation for the next World Radiocommunication Conference in 2015 (WRC-15), we have been working diligently on an agenda item (Agenda Item 1.4) originally proposed by Cuba that seeks establishment of a secondary allocation to the Amateur Service somewhere in the range 5250 to 5450 kHz.

Most of the components of this work are coming together now. At the meetings of Working Party 5A held in Geneva in May 2014, the text of the Conference Preparatory Material (CPM) document for 1.4 was agreed upon. This – as always – is a negotiated compromise between those administrations who are likely to support the initiative and those who are likely to oppose it.

Working through documents proposed by Canada, China, the Netherlands, Norway, Russia and the United States, the document makes a case for Amateur operations in emergencies and addresses the occupancy of the requested spectrum by existing users and the likelihood of Amateurs causing unmanageable interference.

Five options are proposed for consideration by the delegates to WRC-15.

Four of these propose different forms of an allocation and a fifth proposes no change.

It is worth noting that none of the proposed allocations include the 5250 to 5275 kHz range where there is an allocation to oceanographic surface-wave radar.

The format of a supporting report on the ability of Amateurs to share this frequency space with the existing users without interference was also agreed upon and the report will likely be finalized at meetings in October. In the next issue of TCA, I hope to expand in more depth on how reports of this nature are crafted and presented.

There are several administrations who are likely to support an initiative for an Amateur allocation at 60 metres. We are also certain of strong opposition from certain other administrations. Amateurs have been seeking an ITU allocation here for years. The upcoming WRC is probably the most-concerted effort we have made to date. While nothing is ever guaranteed, we have reason for cautious optimism.

At the May meetings progress was also made on a WRC-15 proposal to allocate the range 77 to 81 GHz for automotive collision-avoidance radars. Radio Amateurs have a secondary allocation here and a primary allocation in 77.5 to 78 GHz.



As very few – but not zero – Amateurs are yet using this microwave band, it is challenging to mount a strong case for protection. It does appear, however, that the proposed automotive radars would not likely be a significant source of interference to our typical Amateur operations at 77 GHz. Our colleagues in radio astronomy, who also make use of these frequencies, have more-stringent concerns.

During the May meetings, we became aware of an issue affecting Amateur use of the 23 cm band. It involves the current roll-out of the Galileo GPS system by a European consortium.

The Galileo system uses frequencies in the 1260 to 1300 MHz range – among others – and there is serious concern that Amateur operations here, where we have a secondary allocation, may be in jeopardy.

I was privileged to represent both RAC and the IARU at these meetings. As always, the support of Amateur issues by our regulator, Industry Canada, was constant and I thank Christine Hsu, Head of the Canadian WP-5A Delegation for her unwavering support and encouragement.



Above (from left): Dale Hughes, VK1DSH, (Chairman of the 5A1 Working Group – Amateur Radio), Ole Garpestad (IARU Vice-President) and Bryan Rawlings, VE3QN (RAC Special Adviser WRC-15).

At left: Ole Garpestad, LA2RR and Christine Hsu of Industry Canada.





Keith Baker, VA3KSF/KB1SF
PO Box 33
Corunna, ON N0N 1G0
E: va3ksf@rac.ca

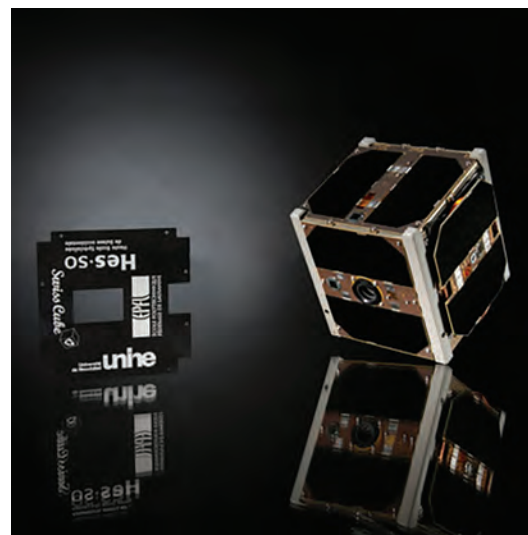
AMATEUR RADIO SATELLITES

A 1U CubeSat is the smallest of the lot, measuring only about four inches on a side.



At left: Brian Klofas, KF6ZEO, shows off a "Peapod" CubeSat launcher at a recent AMSAT-NA Space Symposium. (Courtesy: VA3KSF/KB1SF)

Below: The Tiny imaging camera that's been carried aboard the SwissCube satellite. (Courtesy: EPFL)



CUBESATS

In previous columns, I've been sharing information about the mainstays of our Amateur Radio satellite fleet and how you can receive their signals or, if properly licensed, actually work through those that have transponders.

In this installment, I'll continue the discussion I started in the last issue about a number of other Amateur satellites (called "CubeSats") that have been launched in the last few years. I'll then once again bring you up to date on some of the latest happenings in the Amateur satellite world.

But first, I need to pass along some definitions that have recently evolved in the "satellite biz" that relate to that new breed of satellite called CubeSats.

OF CUBESATS AND PEAPODS

Sometimes also called "nanosatellites", these tiny little satellites have generated a whole new satellite nomenclature all their own.

For example, you will sometimes hear these satellites referred to as 1U, 2U or 3U CubeSats.

A 3U Cubesat structure consists of three, 1U-sized CubeSats stacked one on top of another. Some of the larger CubeSats (of the 3U variety) may also sport deployable solar panels, thus giving them extra power for communications, for onboard experiments, or (more importantly) to keep their batteries warm during eclipse.

However, because they are so tiny, several of these satellites can be launched from a single rocket's upper stage, usually by means of an innovative launch mechanism called a Peapod. In many ways this launcher approach resembles one of those spring-loaded cloth "snakes in a can" we used to buy from a joke shop that quickly sprang out when an unsuspecting victim opened the lid.

Likewise, before launch, the CubeSats are all pushed into one or more of these spring-loaded Peapods mounted on the upper stage of a rocket. There's usually room for three, 1U CubeSats or a single 3U version in each PeaPod and multiple Peapods can be carried on a single rocket's upper stage.

Prior to launch, the spring-loaded "trap door" on the front of the Peapod is closed and firmly latched using a small, electromechanical deployment mechanism. Later, when the upper stage of the rocket achieves orbit, the spring-loaded "trap door" is opened, and out pop the satellites, one by one, into their own orbits.

So, now, let's shine the spotlight on a few more of these CubeSats that were still in orbit and operational at press time (July 2014). However, and as I've noted previously, because the lifetimes of these satellites are sometimes relatively short, they may (or may not) still be operating by the time you read this.

SWISSCUBE

SwissCube is the first satellite built entirely in Switzerland. It was developed at the Ecole Polytechnique Fédérale de Lausanne (EPFL) in collaboration with several Swiss engineering schools, universities and private firms.

The motivation to build and operate SwissCube was (and is) primarily to educate Swiss students in space technologies and space system engineering. The satellite launched in September 2009 and had a design lifetime of three years, although that goal has now been exceeded.

Built as a 1U CubeSat, SwissCube was successfully launched on September 28, 2009 from the Satish Dawan Space Centre in India into a 752 x 726 kilometre, 98-degree (i.e., polar) orbit.

SELECTED FREQUENCY AND MODE DATA

Satellite	Downlink (MHz)	Mode
SwissCube	437.505	CW Beacon 1200 BPS FSK
PRISM	437.250 437.425	CW Beacon 1200 BPS AFSK 9600 BPS GMSK

Portions of this article previously appeared as "A Flock of Other Amateur Radio Satellites: Part II" in the October 2012 edition of Monitoring Times Magazine. Thank you MT!

Power is supplied by a 1.5 Watt solar array with two 1.2Ah lithium-ion polymer batteries. Attitude determination and control is achieved with six sun sensors, a three-axis magnetometer, a gyro, and numerous temperature sensors.

SwissCube's onboard science mission is to observe the "airglow" phenomenon, defined as the photoluminescence of the atmosphere that occurs at approximately 100 kilometre altitude.

SwissCube carries a tiny (767-nm!) telescope that captures images with a resolution of 188 x 120 pixels. Unfortunately, soon after launch, SwissCube was rotating at a high spin rate which prevented use of the camera. However, this spin rate has since slowed enough for SwissCube's ground handlers to turn the camera on and start taking pictures of the Earth's upper atmosphere.

The SwissCube project's live tracking website (<http://swisscube-live.ch/Home/OfficialData>) shows real-time telemetry gathered from ground control and Amateur Radio stations and also provides other links to the SwissCube project.

PRISM

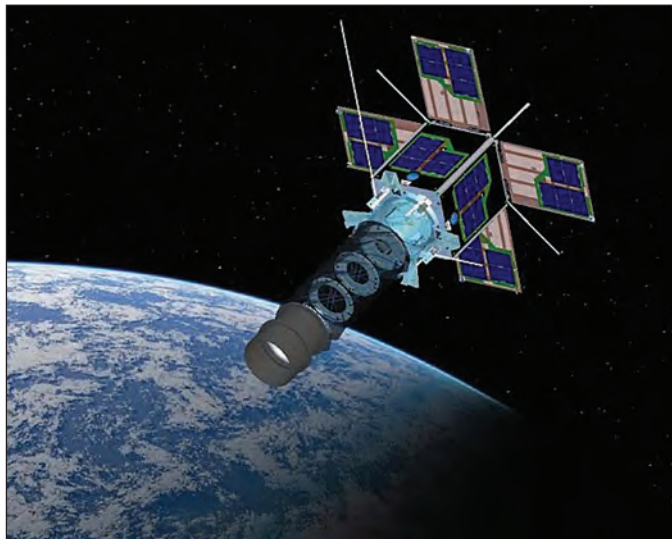
PRISM is a project of the University of Tokyo Intelligent Space Systems Laboratory (ISSL). PRISM is an acronym for "Pico-satellite for Remote-sensing and Innovative Space Missions". Its nickname, *hitomi*, means "eyes" in Japanese.

PRISM was successfully launched on January 23, 2009 from the Tanegashima Space Centre in southern Japan. PRISM was initially planned to have a six-month mission and an expected one- to two-year lifespan, both of which have now long since been exceeded.

The primary mission of PRISM is to capture images of Earth using an extendable optical system.

A secondary mission provides Amateur Radio frequency communications for education purposes. Both objectives have since been met many times over.

An artist's drawing of how the PRISM satellite might look in orbit. (Courtesy: University of Tokyo ISSL)



PRISM obtains its 10 metre resolution images using a colour CMOS area imager (1280 x 1024 pixel image size). This relatively high resolution from a small satellite was achieved by deploying the lens on an extendable boom mechanism that was successfully deployed on February 27, 2009.

A second CMOS area imager, with a nearly 1,000-km² field of view, captures images over a wider area and is used to determine where to point the narrow field imager. Power is supplied to the satellite by a Gallium Arsenide solar array charging lithium-ion polymer batteries. Attitude determination and control is achieved with magnetometers, gyros, a small magnetic torquer and a sun sensor.

At press time, only the 50 WPM CW telemetry beacon was operational. More information about the PRISM mission can be found at online at <http://www.space.t.u-tokyo.ac.jp/prism/en/main.html> and at <http://directory.eoportal.org/web/eoportal/satellite-missions/p/prism>.

MORE ON THE WAY

With the advent of the CubeSat design, more and more of these small satellites are now being built and launched by various organizations around the world. Indeed, a recent June 2014 launch from Russia carried not one, but 37 of these little wonders into orbit, some of which might be up and operational on the Amateur bands as you read this.

Remember, the AMSAT webpage at <http://www.amsat.org> will always have the very latest information about new launches as well as links to the operational status of new Amateur satellites already in orbit.



RAC President Geoff Bowden, VE4BAW, shows off the full-scale Fox-1A engineering space frame at the 2104 Dayton Hamvention. RAC and AMSAT were "booth neighbors" at the event. (Courtesy: VA3KSF/KB1SF)

PROJECT FOX UPDATE

In my July-August 2014 column, I brought you up to date on AMSAT-North America's next big project: a CubeSat design of our own we call "Fox". As you may recall, back in February 2012, Fox-1 was awarded a berth on an upcoming NASA ELaNa (Educational Launch of Nanosatellites) mission. Over the last few months, Fox-1 experimenters have been very busy building the satellite's final flight hardware and "testing stuff" to use the words of AMSAT-NA's new Engineering Vice-President Jerry Buxton, NOJY.

Significant milestones to date include final International Amateur Radio Union (IARU) frequency coordination for both Fox-1A and Fox-1B's uplink and downlink frequencies. Fox-1A's uplink will be on 435.160 MHz and its downlink will be on 145.960 MHz. Fox-1B's (also called RadFxSat) uplink will be on 435.180 MHz with the downlink on 145.980 MHz.

You may ask why these frequencies need to be "coordinated". Frequency coordination of Amateur Radio satellites is a significant part of the design and construction process for these projects. Without it, chaos would reign on orbit with one satellite's downlink signals getting into another satellite's uplink pass band, rendering one (or both) of them unuseable.

Another significant milestone was recently achieved when Fox-1A's battery control board successfully passed its thermal-vacuum test. These tests are run to make sure that various satellite components will stand up to the extremely low (and high) temperatures while also in the vacuum of space.

– continued on page 17

ANTENNAS & TRANSMISSION LINES



David Conn, VE3KL
24 Terrace Drive
Ottawa, ON K2H 9N2
E: davidconn@rogers.com

INTRODUCTION

Part 1 of this series introduced the L match as a starting point for the study of antenna tuners and stated that the concepts introduced through the L match can be extended to other matching circuits for various uses such as reducing the drop-out regions of matching and for making a single tuner that can match most loads.

It was shown that there are several versions of the L match, each of which can match only certain impedances greater/less than $50\ \Omega$. This circuit lends itself to automatic antenna tuners that connect inductors and capacitors into the required configuration for the impedances to be matched. It is also used frequently in monoband antennas where a broad range of tuning is not required and for other applications such as matching microwave amplifier input, interstage and output components to some specification.

Note: This article uses TCA hotlinks to provide access to enriched media from the RAC website. For more information, please go to <http://www.rac.ca/tca>.

ANTENNA TUNERS: A CLOSE LOOK – PART 2 OF 2

There are some drawbacks of the L match but in general it can be used very successfully. One problem with it is that it cannot match impedances very close to $50\ \Omega$ without using very large/small component values. This can be a problem when the antenna impedance in a given band slowly changes from $45\ \Omega$ to $55\ \Omega$ for example. A different L circuit is required as the frequency is changed.

Part 2 of this series goes on to explore the advantages and disadvantages of several other matching networks where we find that all of the networks discussed have their advantages and disadvantages.

Part 2 also gives an experimental study of the popular T match using a differential capacitor where only two tuning knobs (see TCA hotlinks 1 and 2) are used to accomplish the matching task instead of the usual three-element tuning method used by many Amateurs and commercial suppliers.

THE T TUNER

The evolution of the L tuner to the T tuner is explained using the help of Figure 1. The T tuner considered here consists of a series capacitor C_s connected to the transmitter, a shunt L and a series capacitor C_L connected to the antenna.

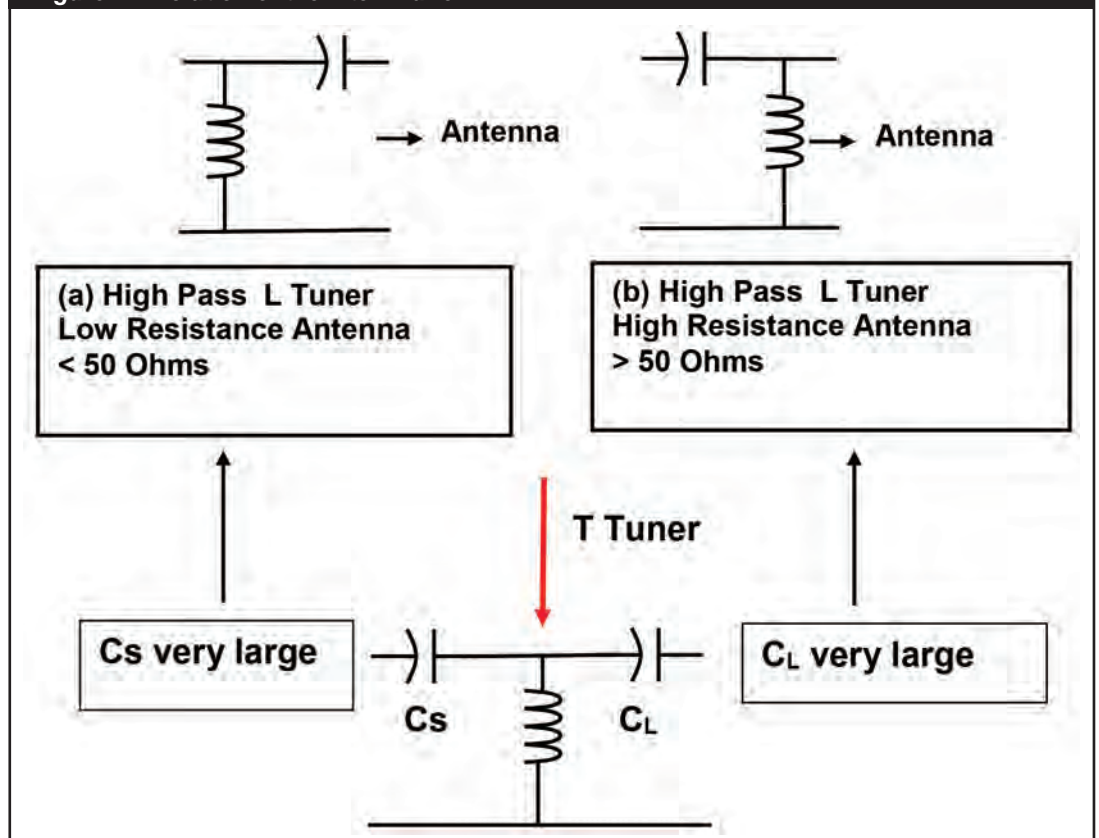
If C_s is very large, it approximates a short circuit and the T match looks like the L match shown in Figure 1(a); and if C_L is very large, the T match looks like the L match shown in Figure 1(b). This indicates that the T match can be adjusted for almost any load impedance including $50\ \Omega$.

There is another type of T match that can be used. It is the dual of the first circuit where the capacitors are replaced with inductors and the inductor is replaced with a capacitor. The dual circuit has the disadvantage of using two inductors which can be very expensive if roller inductors are used.

One disadvantage of the T tuner is that there are an infinite number of capacitance and inductance values that can achieve a match. This makes it confusing for the user. How do you go about adjusting the three knobs for a good match? If this is not done correctly, three things can occur:

- 1) The inductor can overheat which usually occurs if the inductor is too large.
- 2) The capacitors can arc over which usually occurs if either or both capacitors are too small.
- 3) The power loss in the tuner itself can be excessive.

Figure 1: Evolution of the L to T Tuner



To explore some of these problems I have simulated the T type tuner performance using SimSmith (see TCA hotlink 3) for three loads and various values of the circuit Q and circuit values. The results are shown in Table 1 where the transmitter power is 500 Watts at a frequency of 10 MHz for all cases. Each tuner was adjusted for 50 Ω input impedance (SWR = 1.0) at 10 MHz. Tuners 1 to 3 use a 300 Ω load while Tuners 4 to 6 use a 25 Ω load. Tuner 7 assumes that the tuner sees a short circuit (0.1 Ω).

Tuners 8 and 9 demonstrate the effects of proper and improper tuning for a load of 50 Ω resistance. In this table, I have also shown the approximate circuit Q (related the bandwidth; see TCA hotlink 1) for each tuner where applicable.

Tuner 1, using a large inductor, reveals some interesting data. For a 500 Watt transmitter there will be 72 Watts dissipated in the inductor causing extreme heating. Also note that the capacitors C_s and C_L are very small. This implies that there will be very high voltages across the capacitors, approximately 4000 Volts in this example. Here the circuit Q is 15.

Tuner 2 uses different values for the matching elements and has a lower circuit Q. In this case the power loss in the inductor is down to 31 Watts. Here the circuit Q is 5. The trend continues for Tuner 3 where the circuit Q is now only 2 and the power lost in the inductor is down to 9 Watts.

Similar results for Tuners 4, 5 and 6 are shown for a 25 Ω load. The most efficient tuner in this case is Tuner 6 where only 5 Watts is dissipated in the inductor, however a problem with capacitor size is now starting to emerge. The tuning capacitors are now quite large (approximately 450 pF).

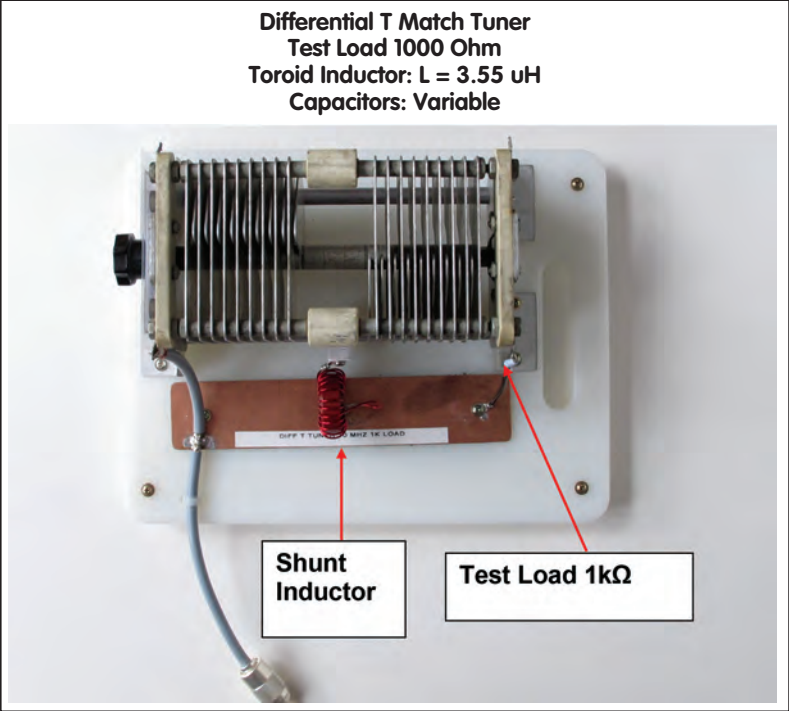
If this tuner is scaled to 3.5 MHz, the capacitors will be very large and not too practical for normal usage so we will have to resort to a circuit with slightly higher losses.

I decided to see if the T tuner can be easily set up to tune into a short circuit. The results are shown in Tuner 7 of Table 1. The power dissipated in the inductor is 390 Watts with the remaining 110 Watts being lost in the capacitors.

Note that all of the tuning elements are of a practical size meaning that the T tuner can be readily matched into a short circuit. This is one of the real problems with the T match that the user must be aware of if proper performance is to be obtained.

Tuners 8 and 9 show what happens when different tuning strategies are used for tuning into a simple 50 Ω load. Tuner 8 uses large capacitive values (225pF) with the result that only 9 Watts is dissipated in the inductor. Tuner 9, however, was tuned poorly using very small capacitors (24 and 23 pF) with the result that the power dissipated in the inductor is 63 Watts.

Figure 2: Photograph of Differential T Match Capacitor



TUNING STRATEGY FOR THE T TUNER

Tuning the T tuner poses a real problem since a perfect SWR can be achieved with an infinite number of settings for the tuning elements. However, each setting produces a different loss and circuit Q for the tuner.

Generally, it is important to avoid using very small capacitor values and a large value for the inductor, which leads to a high circuit Q and high circuit losses as well as high voltage on capacitors that can cause arcing and component breakdown.

This problem has been addressed in the literature (see TCA hotlink 1 and 2), each using a different strategy which can produce reasonable results.

T TYPE TUNER SIMULATION						
Transmitter Power 500 W 10 MHz / Inductor Q = 200 / Capacitor Q = 2000						
Tuner #	RL [Ω]	C_s [pF]	L [uH]	C_L [pF]	Power in L [W]	Circuit Q
1	300	15	12	6	72	15
2	300	45	4.1	19	31	5
3	300	113	2.0	75	9	2
4	25	22	5.1	28	82	15
5	25	66	1.7	88	29	5
6	25	452	0.56	450	5	1
7	0.1	18.6	1.48	152	391	Not calculated
8	50	225	0.84	225	7	Not Calculated
9	50	24	5.4	23	63	Not Calculated

THE T TUNER WITH A DIFFERENTIAL TUNING CAPACITOR

The T tuner that uses a differential capacitor z (see TCA hotlink 4) and a roller inductor is a direct descendant of the three-knob T tuner, except that the capacitors are controlled by a single tuning knob that tunes both capacitors with the ganged capacitor plates offset by 180 degrees.

When the tuning shaft is rotated, one capacitor gets bigger and one gets smaller. It covers a wide tuning range but does not achieve the very best with respect to circuit Q and losses. However, it is easy to tune and produces good results.

The value of each capacitor is given approximately as:

$$C_L = C_{\max} * k \quad 0 < k < 1$$

$$C_s = C_{\max} * (1 - k)$$

Where C_{\max} is the maximum value of each section and k depends on the rotation of the tuning shaft. With $k = 1$, then C_s equals zero and $C_L = C_{\max}$.

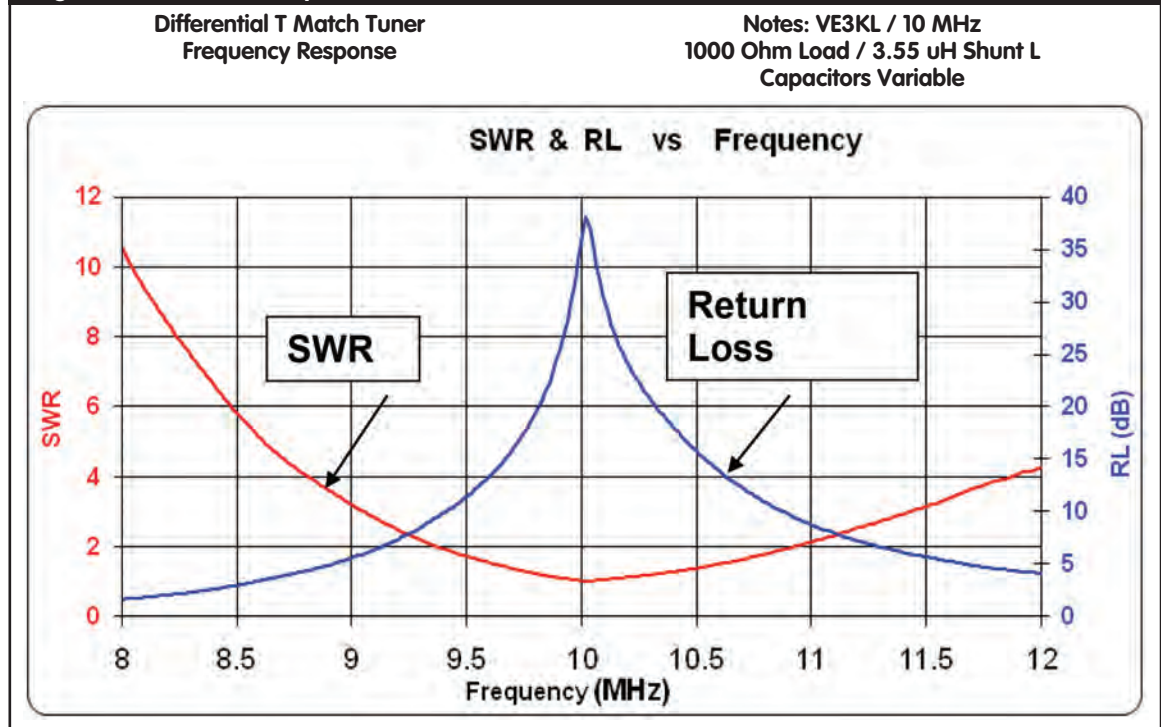
This simple equation that I use for simulation purposes does not include the fact that the minimum capacitor value with the plates of either section completely open is usually around 20 pF depending on the capacitor design.

To test the operation of a differential capacitor T tuner, I designed and constructed a breadboard unit for operation at 10 MHz. A photograph of the tuner is shown in Figure 2 on the previous page. The load was set to 1,000 Ω and a fixed shunt inductor of 3.55 μ H was used.

The tuner was designed with the aid of SimSmith using the capacitor equations given above where C_{\max} was set to 225 pF.

The simulated tuner loss equals 0.1 dB under the assumptions that the inductor Q is 200 at 10 MHz and that the capacitors are lossless.

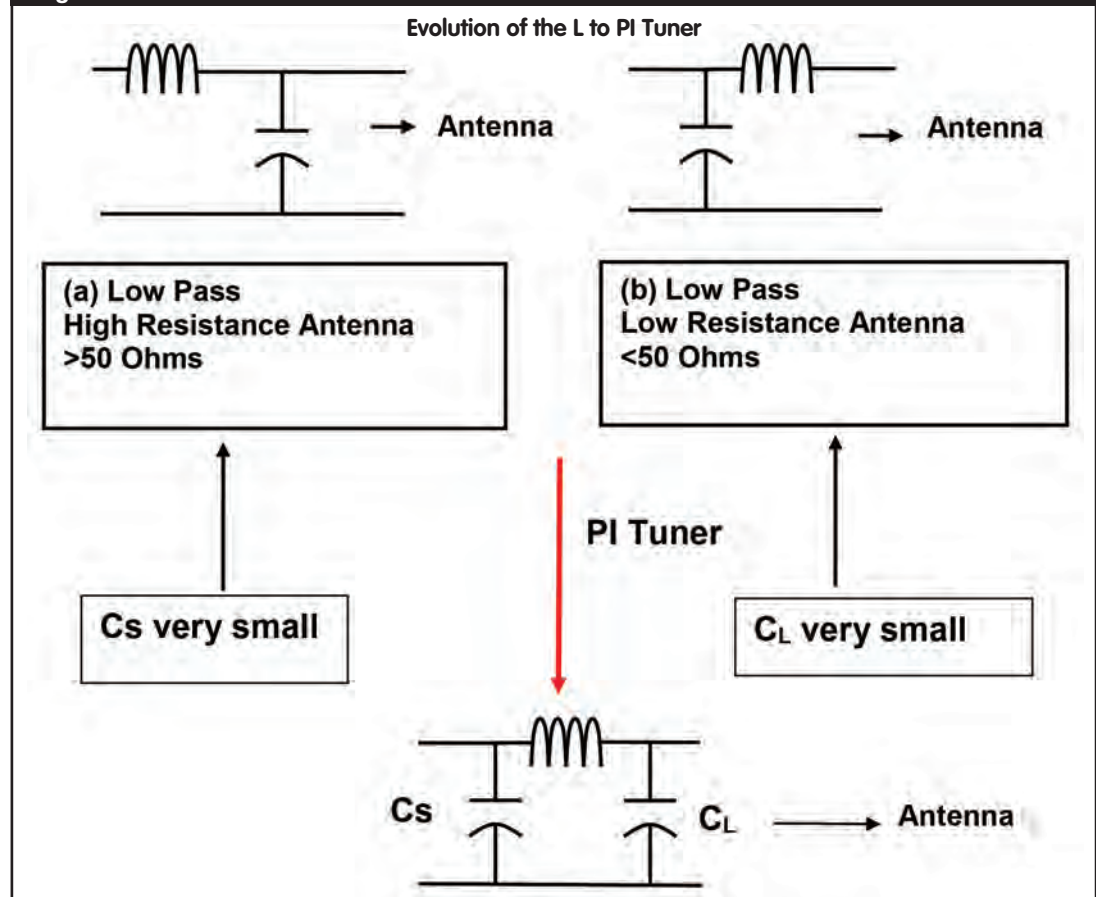
Figure 3: Measured Response of the Differential T Match Tuner



In practice the loss should not exceed 0.25 dB unless the inductor and capacitors are excessively lossy. This can be the case for old roller inductors that need to be overhauled.

The measured frequency response of the tuner is shown in Figure 3 where the SWR and return loss are plotted from 8 to 12 MHz. The 1.5 SWR bandwidth is close to 1 MHz which easily covers the 30 metre band without any tuning.

Figure 4: Schematic of the PI Match Tuner



THE PI TUNER

The evolution of the L tuner to the PI tuner is explained using the help of Figure 4 on the previous page. The PI tuner considered here consists of a shunt capacitor C_s connected to the transmitter, a series L and a shunt capacitor C_L connected to the antenna. If C_s is very small, it approximates an open circuit and the PI match looks like the L match shown in Figure 4(a); and if C_L is very small, the PI match looks like the L match shown in Figure 4(b). This indicates that the PI match can be adjusted for almost any load impedance including 50 Ω .

There is another type of PI match that can be used. It is the dual of the first circuit where the capacitors are replaced with inductors and the inductor is replaced with a capacitor. The dual circuit has the disadvantage of using two inductors which can be very expensive if roller inductors are used.

THE Z TUNER

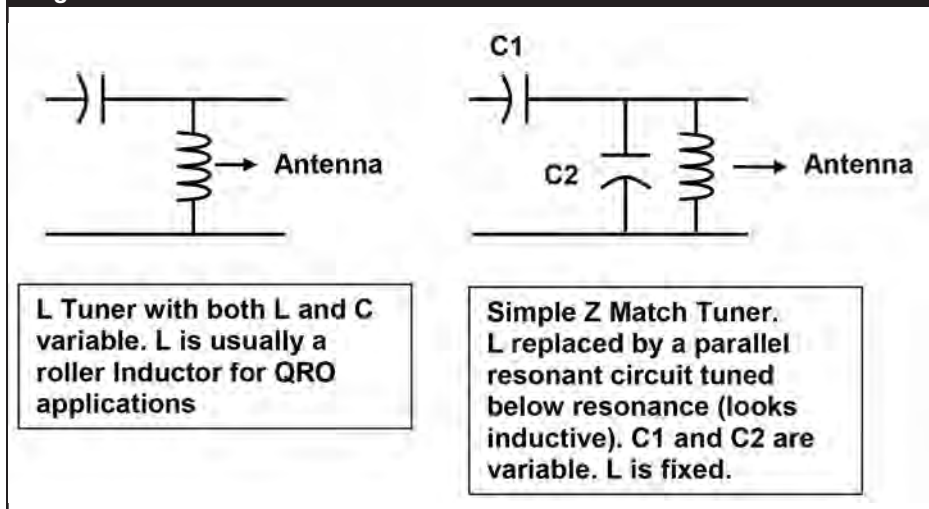
The Z match is an interesting circuit (introduced by Allen W. King, W1CJL, QST, May 1955) that is a modification of an L match as shown in Figure 5, where a variable series capacitor, C, is connected to the transmitter and a shunt inductor, L, is connected across the antenna. The inductor is realized by a tank circuit that is tuned below its resonant frequency so that it looks like an inductor at the frequency of operation.

Lloyd Butler, VK5BR (see TCA hotlink 5) has experimented extensively with this circuit and explains how it behaves like an L tuner. The circuit used by VK5BR for a single coil Z match is shown in Figure 6. There are many other references (see TCA hotlink 6) for the Z match including articles in the ARRL Antenna Compendiums, Volumes 3 and 5, where a more detailed explanation of its operation is presented.

The single split stator capacitor, C2, and tapped inductor arrangement produces parallel resonance at two different frequencies for one setting of C2. Hence, the circuit has two different tuning ranges where an equivalent inductor can be realized. This produces a wide frequency tuning range.

As with all other tuners, the Z match has its problems such as drop-out regions like the L tuner. This problem is usually solved by inserting an inductor in series with the antenna to avoid capacitive loads that cannot be matched. This is not a perfect solution since more loss is now added to the circuit by the inductor resistance.

Figure 5: Evolution of the L to Z Match Tuner

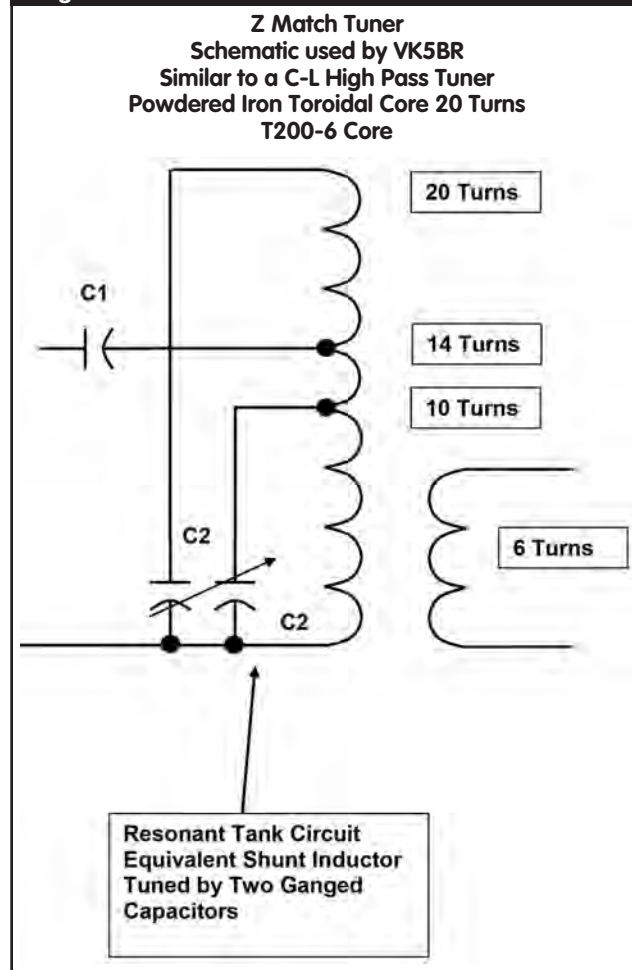


TRANSFORMERS AND TRANSMISSION LINE STUBS

Transmission Line stubs are often used for VHF frequencies where it can be difficult to use lumped element inductors and capacitors because of their size. They are also used in HF bands for special applications and filters. They can be thought of as simple extensions of the L tuner for many cases and will also have drop-out regions. Capacitors are realized by open circuited transmission lines and inductors by short circuited transmission lines.

A simple example (300 MHz) of the use of this technique is given in Figure 7 on the next page, where a 75 Ω load is matched to a 50 Ω transmitter. As seen in the diagram, an inductive stub is located 0.141 metres from the load and its characteristic impedance is 75 Ω . The length of the shorted stub is 0.162 metres. The calculations for this matching structure were performed by the 4nec2 built-in matching calculator (see TCA hotlink 7). The calculator does not include a frequency response feature so I used SimSmith to plot the SWR and Loss over the band of 250 to 350 MHz (see Figure 8). The bandwidth is extremely high due to the short sections of transmission lines and the matching loss is low due to the short lines used in this example.

Figure 6: Schematic of the Z Match Tuner



CONCLUSIONS AND DISCUSSION

This series of articles gave a broad overview and some experiments conducted with antenna tuners.

In many cases a tuner is not required because modern solid state transmitters can handle a fairly high SWR, but in other cases they are an essential tool for successful operation of the radio system.

Figure 7: Stub Tuner for 300 MHz

Matching with Transmission Lines and Stubs From 4nec2 Matching Calculator

Case A below/Shorted Stub

L1 = 0.14m: Equivalent to a Series Inductor

L2 = 0.16m: Equivalent to Shunt Inductor

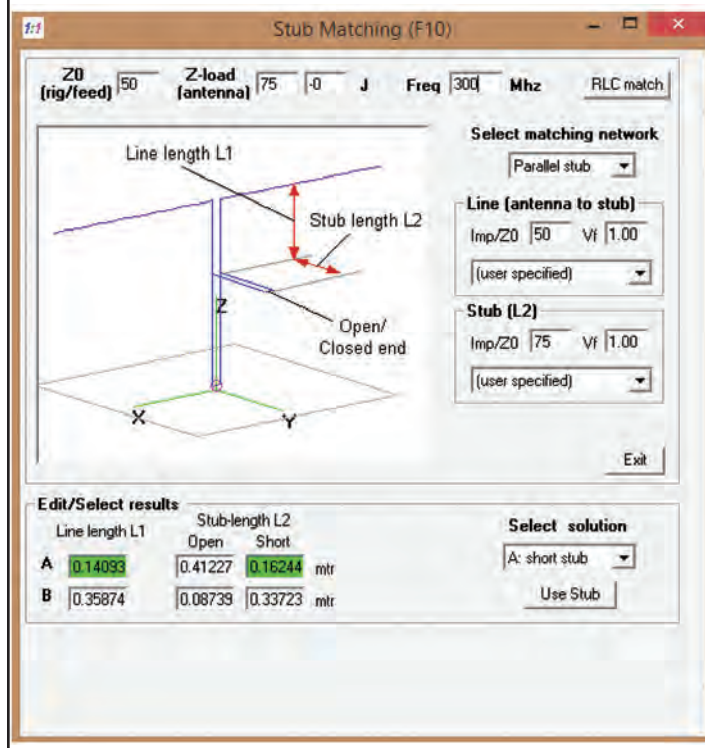
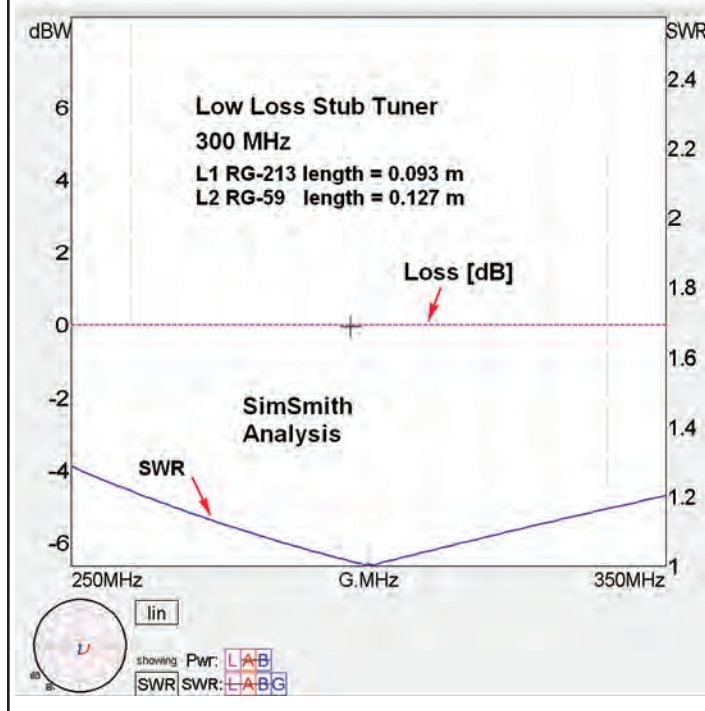


Figure 8: Frequency Response of 300 MHz Stub Tuner

SWR and Loss of Stub Tuner 75 to 50 Ω Transformation 300 MHz



It was shown that some tuners can match into a short circuit, which means that great care must be taken when using tuners to avoid overheating, arcing and poor performance.

It was also shown that there is no single antenna tuner that is the best one to use as they all have their limitations such a drop-out regions. There are many examples of tuners that were not discussed in these articles that have been used successfully over the years.

FURTHER STUDY USING TCA HOTLINKS

Further information is provided with TCA hotlinks which are easily accessed via the RAC website at <http://www.rac.ca/tca>:

TCA hotlink 1: Antenna Tuners W8IJ –
http://www.w8ji.com/antenna_tuners.htm

TCA hotlink 2: Getting the Most Out of your T-Network Antenna Tuner –
<http://www.arrl.org/files/file/Technology/tis/info/pdf/9501046.pdf>

TCA hotlink 3: SimSmith Calculator –
http://www.ae6ty.com/Smith_Charts.html

TCA hotlink 4: The Palstar Differential T Tuner –
<http://www.palstar.com/en/at1500hb/>

TCA hotlink 5: The Z Match Tuner, Lloyd Butler, VK5BR –
<http://users.tpg.com.au/ldbutler/SingleCoilZMatch.htm>

TCA hotlink 6: The Original Z-Match Design, C. Lofgren, W6JJZ –
http://www.njqr.org/mbrproj/zmatch_original.htm

TCA hotlink 7: 4nec2 Antenna Simulator <http://www.qsl.net/4nec2/>
– Until later, David, VE3KL



Amateur Radio Satellites – continued from page 12

Another “must do” was recently achieved when the Fox-1 team received a licence to operate Fox-1A’s remote sensing camera. This licence, required by US law and issued by the USA’s National Oceanic and Atmospheric Administration (NOAA), must be obtained if a US-built satellite is to operate a camera from orbit.

At my column deadline (mid-July 2014) the completed engineering model of the satellite was undergoing “full up” testing at N0JY’s home and all was proceeding well, with only a few minor “hiccups” to be ironed out.

LAUNCH STATUS

As I also noted in previous columns, AMSAT’s Fox-1 project timeline was initially based on an anticipated launch for the satellite in the second half of 2013. However, as with most satellite launches, that date has now slipped. Fox-1 now needs to be finally “buttoned up” and shipped to NASA in October of this year to be prepared for flight on any number of subsequent launches in mid-2015.

Needless to say, the launch timeline for Fox-1 could once again slip – or be accelerated – depending on NASA’s other ELaNa launch schedules. In the interim, the latest on Fox-1’s construction and launch status can always be found on the Fox-1 webpage at http://www2.amsat.org/?page_id=1113.

LOOKING AHEAD

That’s all for this time. I trust you are still having fun tracking the beacons and downloading some of the telemetry of these tiny orbital wonders, as well as listening for (or communicating through) our other transponder-equipped Amateur satellites. In future columns, I’ll continue to bring you up to date on the progress of the Fox-1 effort as well as the status of some of our other Amateur satellites still in orbit. See you then!

**MINUTES OF THE TWENTIETH-FIRST ANNUAL
GENERAL MEETING OF THE MEMBERS
OF RADIO AMATEURS OF CANADA**



**PROCÈS-VERBAL DE LA VINGT-ET-UNIÈME
ASSEMBLÉE GÉNÉRALE ANNUELLE DES
MEMBRES DE RADIO AMATEURS DU CANADA**

**JULY 27, 2014 – INN AT THE QUAY
NEW WESTMINSTER, BRITISH COLUMBIA**

**27 JUILLET 2014 – INN AT THE QUAY
NEW WESTMINSTER, COLOMBIE-BRITANNIQUE**

1. The meeting was called to order at 12:00 noon PDT by President Geoff Bawden, VE4BAW. Over 20 members were present in person. He informed those present that the meeting was also on screen across Canada via GoToMeeting Webinar. Over 40 participants were active in this webinar. They will also get the opportunity to vote on the motions presented. Quorum was established for the purposes of the Constitution (requires minimum of 10 members.)

2. President Bawden introduced the Board members, Executive Officers and other dignitaries present either in person or on the Webinar.

These included: Bill Gipps, VE7XS, Director; Mitch Mitchell, VE6OH, Director; Ed Frazer, VE7EF, Former RAC Director for British Columbia/Yukon; Dorothy Brown, VA7DBR, RAC Treasurer; Ann Mitchell, XYL of Mitch Mitchell, VE6OH; Ralph Webb, VE7OM, Deputy Director; Joe Beaubien, VE7CGE, Assistant Director; Paul Giffin, VA7MPG, Section Manager British Columbia/Yukon; Frank Greene, RAC Office Administrator; Vince Charron, VA3GX, RAC Director of Communications and Fundraising; Glenn MacDonell, VE3XRA, RAC Vice-President; George Gorsline, VE3YV, International Affairs Officer; Derek Hay, VE4HAY, Director; Bill Unger, VE3XT, Director; Ian Snow, VA3QT, Section Manager Ontario South; Marcel Mongeon, VA3DDD, Honourary Legal Counsel; and Al Masse, VE3CWP, RAC Corporate Secretary.

3. President Bawden, asked for a Moment of Silence in honour of any Silent Keys including members Bob Eldridge, VE7BS and Vern Ikeda, VE2MBS, who became Silent Keys recently.

4. Approval of the Minutes of the October 5, 2013 AGM Meeting held in Ancaster, Ontario.

Motion was made by Ed Frazer, VE7EF and seconded by Ralph Webb, VE7OM to approve the Minutes of the October 5, 2013 AGM meeting held in Ancaster, Ontario as written. Motion was carried.

5. President Geoff Bawden then presented his report which will be attached to these minutes and will appear separately in TCA.

6. Acceptance of the December 31, 2013 Audited Statements. President Bawden reviewed the summary of the audited statements and then asked for a motion for their approval.

Motion was made by Hans Lutman, VE7HRA and seconded by Ted Lee, VE7LEE, to approve the December 31, 2013 audited Statements prepared by Collins Barrow LLP. Motion was carried.

7. President Bawden then sought a motion to retain the services of Collins Barrow, LLP as our auditors for the year ending December 31, 2014.

Motion was made by Robert King, VA7DX and seconded by Alan Ross, VE7WJ, to retain the services of Collins Barrow, LLP as our auditors for the year ending December 31, 2014. Motion was carried.

8. *Canada Not-for-Profit Corporations Act*, the articles of continuance need to be approved by a special resolution of the members. President Bawden explained the reason for these requirements.

1. L'assemblée a été déclarée ouverte à 12h00 (heure du Pacifique) par le président Geoff Bawden, VE4BAW. Plus de 20 membres étaient physiquement présents. Le président informe ceux qui sont présents que l'assemblée est diffusée partout au Canada via GoToMeeting Webinar. Plus de 40 participants étaient actifs par l'intermédiaire du webinar. Ils ont eu aussi la chance de voter sur les motions présentées. Le quorum de 10 membres a été atteint selon les exigences de la constitution en pareille circonstance.

2. Le président Bawden a présenté les membres du Conseil d'administration, les responsables de l'Exécutif et autres dignitaires présents en personnes ou sur le Webinar.

Il s'agit notamment : Bill Gipps, VE7XS, directeur; Mitch Mitchell, VE6OH, directeur; Ed Frazer, VE7EF, ancien directeur pour la Colombie-Britannique/Yukon; Dorothy Brown, VA7DBR, trésorière de RAC; Ann Mitchell, XYL de Mitch Mitchell, VE6OH; Ralph Webb, VE7OM, ancien directeur; Joe Beaubien, VE7CGE, assistant directeur; Paul Giffin, VA7MPG, gérant de section Colombie-Britannique/Yukon; Frank Greene, RAC Office administrateur; Vince Charron, VA3GX, RAC directeur des communications et des levées de fonds; Glenn MacDonell, VE3XRA, RAC vice-président; George Gorsline, VE3YV, responsable des Affaires internationales; Derek Hay, VE4HAY, directeur; Bill Unger, VE3XT, directeur; Ian Snow, VA3QT, gérant de la section Ontario sud; Marcel Mongeon, VA3DDD, conseiller juridique; et Al Masse, VE3CWP, secrétaire corporatif de RAC.

3. Le président Bawden, a demandé un moment de silence en mémoire de toutes les clés silencieuses, incluant les membres Bob Eldridge, VE7BS et Vern Ikeda, VE2MBS, les plus récentes.

4. Le procès verbal de l'AGM du 5 octobre 2013 AGM tenue à Ancaster, Ontario.

La motion fut présentée par Ed Frazer, VE7EF et appuyée par Ralph Webb, VE7OM, afin d'accepter telles quelles les minutes de l'AGM du 5 octobre 2013 tenue à Ancaster, Ontario. Motion adoptée.

5. Le président Geoff Bawden a alors présenté son rapport, lequel est attaché aux présentes minutes et sera publié séparément dans TCA.

6. Adoption des états financiers vérifiés en date du 31 décembre 2013. Le président Bawden a fait la lecture d'un résumé des états vérifiés et a demandé la présentation d'une motion d'adoption.

Une motion a été faite par Hans Lutman, VE7HRA et secondée par Ted Lee, VE7LEE, à l'effet d'accepter les états financiers vérifiés au 31 décembre 2013 et préparés par Collins Barrow LLP. Motion adoptée

7. Le président Bawden a ensuite demandé une motion à l'effet de retenir les services de Collins Barrow, LLP comme vérificateur pour l'année se terminant le 31 décembre 2014.

La motion fut présentée par Robert King, VA7DX et appuyée par Alan Ross, VE7WJ, à l'effet de retenir les services de Collins Barrow, LLP comme vérificateur pour l'année se terminant le 31 décembre 2014. Motion adoptée.

Motion was made by Robert King, VA7DX and seconded by Hans Mausolf, VE6AMI, to approve the special resolution as required by the *Canada Not-for-Profit Corporations Act*. Specifically, the motion was in the form previously published in TCA to adopt the articles of continuance. The motion was carried by more than two-thirds of the members participating.

9. Required amendments to the bylaws as a result of the *Canada Not-for-Profit Corporations Act*, Articles of Continuance. These amendments require a motion.

Motion was made by Robert King, VA7DX and seconded by Allen Wootton, VE7BQO, to approve the revisions in the by-laws relating to the requirements of the *Canada Not-for-Profit Corporations Act*. Specifically, the motion was in the form previously published in TCA to adopt the by-laws. This motion was carried by more than two-thirds of the members present.

10. Motion for Adjournment

Meeting was adjourned at 1:12 PDT on a motion by Mitch Mitchell, VE6OH.

*Recorded by Al Masse, VE3CWP
RAC Corporate Secretary
July 27, 2014*

8. En raison de la *Loi canadienne sur les organisations à but non lucratif*, les articles indiquant la continuation des activités doivent être approuvés par une résolution spéciale des membres. Le président Bawden a expliqué la raison de ces exigences.

La motion a été présentée par Robert King, VA7DX et appuyée par Hans Mausolf, VE6AMI, à l'effet d'approuver la résolution spéciale telle que requise par la *Loi canadienne sur les organisations à but non lucratif*. Exceptionnellement, la motion a été présentée dans la forme déjà publiée dans TCA prévue pour adopter des articles de « continuation ». La motion fut adoptée par plus des deux tiers des membres participants.

9. Amendements requis par les règlements en raison de l'article de continuation des activités de la *Loi canadienne sur les organisations à but non lucratif*. Ces amendements exigent une motion.

La motion a été présentée par Robert King, VA7DX et appuyée par Allen Wootton, VE7BQO, à l'effet d'approuver la révision des règlements reliés aux exigences de la *Loi canadienne sur les organisations à but non lucratif*. Exceptionnellement, la motion a été présentée dans la forme déjà publiée dans TCA pour l'adoption des règlements. La motion fut adoptée par plus des deux tiers des membres présents.

10. Motion d'ajournement

L'assemblée a été ajournée à 13h12 heure du Pacifique par Mitch Mitchell, VE6OH.

*Compte rendu par Al Masse, VE3CWP
Secrétaire corporatif de RAC
27 juillet 2014*

Traduction par Claude Lalande, VE2LCF. Merci Claude!

RAPPORT AUX MEMBRES DE RAC À L'AGM – suite de la page 7

Je serais négligeant si je ne mentionnais pas le prix remis à Jeff Dovyak, VE4MBQ, coordonnateur des urgences pour Winnipeg. Il a été nommé par ses pairs pour son leadership à l'ARES de Winnipeg et à l'occasion de nombreuses inondations dans la vallée de la Rivière Rouge.

Ce qui suit consiste en quelques items que nous négocions actuellement avec le ministre d'Industrie Canada qui, récemment, a demandé à son ministère de prendre en charge une consultation publique sur la hauteur et l'emplacement des antennes. RAC a répondu à la consultation en écrivant au Canadian Amateur Radio Advisory Board (CARAB). Il semble, selon la nouvelle politique, que les amateurs conserveront l'exemption actuelle du 15 mètres.

Pour supporter notre nouvelle structure régionale, un sous-comité présidé par Paul Giffin, VE7IPM/VA7MPG, s'est réuni à Winnipeg afin de définir une structure pour les compétences et les postes structurants de l'organisation. Dans les organisations professionnelles, une réorganisation sérieuse nécessite au moins deux ans de travail. Notre organisation repose sur le bénévolat et tout ce que nous entreprenons prend plus de temps, peu importe le sujet que nous traitons.

Une décision qui doit être prise rapidement est de savoir si oui ou non il faudra se doter d'un « bureau virtuel ». Notre loyer à Ottawa se termine au cours du premier trimestre de 2015 et le bureau est trop grand pour nos besoins actuels. Si nous réduisons, il nous faudra faire face aux coûts de réaménagement des lieux. En 2010, nous avons commencé à regarder pour un bureau virtuel dans le but de sauver de l'argent. Maintenant nous considérons le point de vue d'un renforcement des services.

Nos comités, partout au Canada, ne sont pas bien soutenus – antenne, planification des bandes, organisation sur le terrain – ni convenablement associés entre eux ou encore les informations sont inadéquatement archivées. Le service de secrétariat (bureau) suit l'heure de l'Est, ce qui est embarrassant quand vous êtes loin dans l'Ouest ou dans les Maritimes. L'argent sauvé par l'abandon du loyer pourrait être utilisé pour supporter la technologie requise (bureau virtuel). Ceci étant, aucune décision n'est encore prise, mais elle devra l'être bientôt, 2015 arrivera avant même qu'on le sache!

Nous poursuivons notre développement relationnel avec des entités intéressées au radioamateurisme telles que RFinder – une compagnie de logiciel qui produit un répertoire électronique de répéteurs avec une fonctionnalité de contrôle à distance – et avec Kenwood : deux nouveaux commanditaires.

Des observateurs étrangers m'ont fait un certain nombre d'observations : une mentionne qu'il y a souvent des conflits entre clubs au Canada; mes amis de C.-B. me disent que cela n'est pas vrai dans la belle Colombie-Britannique!

Les conflits nous font perdre du temps et engendrent des prises de décision émotives de mauvais goût. Les conflits chassent les bénévoles et peuvent envoyer un mauvais signal aux gestionnaires et au public. Mais voilà, c'est ça! Peut-être RAC a-t-il besoin d'engager un médiateur?

Une deuxième observation – et elle provient d'un observateur étranger bien informé – « Les amateurs canadiens ne veulent pas d'une société nationale forte ». Si c'est vrai, ce serait le plus dommageable obstacle dans notre désir de créer une organisation représentative forte, capable de protéger la radio amateur. Nous, tous les radioamateurs, devons tirer dans la même direction pour sauvegarder les acquis et pour obtenir de nouvelles fréquences.

Pour l'AGM de l'année prochaine, nous serons en Saskatchewan. RAC a reçu et accepté l'invitation du Meewasin Amateur Radio Club pour la tenue de notre AGM conjointement avec leur hamfest. Plus de détails à venir.

Geoff Bawden, VE4BAW – RAC Président-directeur général

Nombre de membres

Décembre 31, 2013	4551
Décembre 31, 2012	4631
Décembre 31, 2011	4630
Actuellement – Juillet 2014	4728
Maple Leaf	324
Coupons (nouveaux amateurs)	240



– Traduction par Claude Lalande, VE2LCF. Merci Claude!

RADIO AMATEURS OF CANADA INC./RADIO AMATEURS DU CANADA INC.

Condensed Financial Statements for the year ended December 31, 2013

Balance Sheet

December 31	2013	2012
Assets		
Current		
Cash (Note 1)	144,398	120,978
Short-term investments (Note 2)	50,346	50,346
Accounts receivable	4,331	2,941
Inventory	3,155	7,284
Prepaid expenses	5,530	7,165
	<u>207,760</u>	<u>188,714</u>
Tangible capital assets (Note 3)	<u>2,221</u>	<u>1,901</u>
	<u>209,981</u>	<u>190,615</u>
Liabilities and Net Assets		
Current		
Accounts payable and accrued liabilities	14,074	26,354
Government remittances payable	2,114	712
Current portion of deferred membership revenue (Note 4)	116,700	115,500
	<u>132,888</u>	<u>142,566</u>
Deferred membership revenue (Note 4)	<u>196</u>	<u>2,108</u>
Deferred program revenue (Note 5)	<u>15,699</u>	<u>16,292</u>
	<u>148,783</u>	<u>160,966</u>
Net assets		
Internally restricted for investment in capital assets	2,221	1,901
Unrestricted	58,977	27,748
	<u>61,198</u>	<u>29,649</u>
	<u>209,981</u>	<u>190,615</u>

Statement of Changes in Net Assets

For the year ended December 31	2013 Net Assets	2012 Net Assets (Deficiency)
Balance, beginning of year	29,649	(12,694)
Excess of revenue over expenses for the year	31,549	42,343
Investment in capital assets	—	—
Balance, end of year	<u>61,198</u>	<u>29,649</u>

Statement of Operations

For the year ended December 31	2013	2012
Revenue		
Sales	1,350	6,724
Investment income	775	944
Membership	236,430	220,034
Magazine advertising	16,025	16,783
Other income	54,270	41,237
	<u>308,850</u>	<u>285,722</u>
Expenses		
Amortization of tangible capital assets	718	848
Annual meeting	12,119	—
Bad debts (recovered)	(1,274)	3,035
Bank charges, merchant fees and interest	8,117	8,292
Cost of sales and royalties	724	5,557
Dues and memberships	11,040	9,540
Equipment leases and charges	241	4,077
Executive and Directors	6,024	357
Insurance	35,428	31,491
Magazine production	82,519	75,340
Office	22,746	14,885
Professional fees	7,800	6,900
QSL bureaus	5,969	4,788
Rent	18,020	18,020
Telephone	1,675	2,214
Wages and benefits	65,435	58,035
	<u>277,301</u>	<u>243,379</u>
Excess of revenue over expenses for the year	<u>31,549</u>	<u>42,343</u>

Statement of Cash Flows

For the year ended December 31	2013	2012
Cash flows from operating activities		
Excess of revenue over expenses for the year	31,549	42,343
Adjustments for		
Amortization of tangible capital assets	718	848
Amortization of deferred lease inducement	—	(847)
	<u>32,267</u>	<u>42,344</u>
Changes in non-cash working capital items		
Accounts receivable	(1,390)	7,280
Inventory	4,129	959
Prepaid expenses	1,635	(1,828)
Accounts payable and accrued liabilities	(12,280)	(5,656)
Government remittances payable	1,402	(7,792)
	<u>25,763</u>	<u>35,307</u>
Cash flows from investing activities		
Net decrease in investments	—	646
Tangible capital asset additions	(1,038)	(1,172)
	<u>(1,038)</u>	<u>(526)</u>
Cash flows from financing activities		
Net increase in deferred membership revenue	(712)	(5,358)
Net increase (decrease) in deferred program revenue	(593)	548
	<u>(1,305)</u>	<u>(4,810)</u>
Increase in cash during the year	<u>23,420</u>	<u>29,971</u>
Cash, beginning of year	<u>120,978</u>	<u>91,007</u>
Cash, end of year	<u>144,398</u>	<u>120,978</u>

Notes to Financial Statements

1. Cash

The association's bank accounts are held at one chartered bank and earn nominal interest. The association has a maximum credit facility of \$15,000 which was unused at year end.

2. Short-Term Investments

The GIC investment is held at one chartered bank and is recorded at cost plus accrued interest, earns interest at 1.55% per annum, is non redeemable and will mature on January 20, 2014.

3. Tangible Capital Assets

	December 31			2013			2012
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value	
Office furniture	3,206	2,581	625	3,206	2,332	874	
Office machines	8,964	8,460	504	8,964	8,316	648	
Computer equipment	2,793	1,701	1,092	1,756	1,377	379	
	<u>14,963</u>	<u>12,742</u>	<u>2,221</u>	<u>13,926</u>	<u>12,025</u>	<u>1,901</u>	

4. Deferred Membership Revenue

Deferred membership revenue represents memberships received during the current year or in prior years that relate to future years. Changes in deferred membership revenue are as follows:

	2013	2012
Balance, beginning of year	117,608	122,966
Amounts received during the year	235,718	214,676
Recognized as membership revenue during the year	(236,430)	(220,034)
Balance, end of year	<u>116,896</u>	<u>117,608</u>
Less current portion	<u>116,700</u>	<u>115,500</u>
Long-term portion	<u>196</u>	<u>2,108</u>

The condensed financial statements and notes have been extracted from the Audited Financial Statements. Copies of the 2013 report of the Auditors, Collins Barrow Ottawa LLP and complete audited financial statements are available from RAC Headquarters.

Please send 9x12 SASE to: Radio Amateurs of Canada, 720 Belfast Road Suite 217, Ottawa, ON K1G 0Z5

5. Deferred Program Revenue

Deferred program revenue represents donations received to be used exclusively for the ARES Program and Youth Education Program. Revenue is to be recognized in the year that related expenses are incurred. Changes in deferred program revenue are as follows:

	ARES Program	Youth Education Program	2013 Total	2012 Total
Balance, beginning of year	7,872	8,420	16,292	15,744
Amounts received during the year	288	369	657	1,023
Amounts recognized as revenue during the year	(1,250)	—	(1,250)	(475)
Balance, end of year	6,910	8,789	15,699	16,292

6. Commitments

Leases

The association has a lease for its office premises for \$18,020 per year plus taxes until expiry on May 31, 2015, inclusive of common costs and utilities.

The aggregate lease payments for the unexpired term of the lease is as follows:

2014	18,020
2015	7,508

Life Memberships

Radio Amateurs of Canada Inc. is the product of the dissolution of two not for profit corporations, Canadian Amateur Radio Federation Inc., and Canadian Radio Relay League Inc. The association recognizes an ongoing commitment to provide membership services (full voting or associate) to persons who held "life status in the association" of the dissolved corporations. This life member liability does not appear as a dollar value on the financial statements, as per the policy decision adopted by the Board of Directors in September 1993.

7. Risks and Concentrations

The association is exposed to various risks through its financial instruments. The following analysis provides a measure of the association's risk exposure and concentrations as at December 31, 2013.

Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The association is exposed to this credit risk mainly in respect of its accounts receivable.

Liquidity risk

Liquidity risk is the risk that the association will encounter difficulty in meeting obligations associated with financial liabilities. The association is exposed to this risk mainly in respect of its accounts payable and accrued liabilities and government remittances payable.

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk, and other price risk. The association is only exposed to interest rate risk.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The association is exposed to interest rate risk on its fixed interest financial instruments.

Changes in Risk

There have been no significant changes in the organization's risk exposures from the 2012 fiscal year.

8. Comparative Amounts

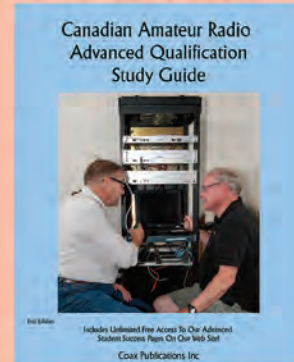
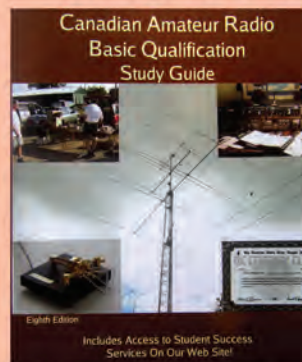
Certain comparative amounts have been restated to conform with the financial statement presentation used for the current year.

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Bob Eldridge, VE7BS
920 Erickson Road
RR2 Pemberton, BC
V0N 2L2
E: ve7bs@rac.ca

I am very sad to inform you that Bob Eldridge, VE7BS, became a Silent Key on Tuesday, July 15. His column ran in TCA for over 24 years. I had the privilege of working with Bob for over 15 years. His was the first column that I received for every issue and I don't remember him missing any columns. I would like to thank his daughter Ann for sending me his column and I extend sincere condolences to Bob's family. A tribute to Bob will appear in the next issue of TCA. – Ed.

TREES AS ANTENNAS

On one of the Amateur Radio reflectors, the subject cropped up yet again about the possibility of feeding RF to a living tree, using it as an antenna.

One participant wrote:

"I can tell you that my son, an Army radio engineer, has used military radios at low power, connecting to the sappy centre and ground to broadcast approximately 800 kilometres. It must be just a matter of how you couple the transmitter to the structure."

Someone responded to this saying that the conductive part of the tree is the cambium layer, just below the bark, not the "sappy centre".

Many years ago I came across some literature on this subject, from Australia and from Fort Monmouth in the US.

QUA – A TOPICAL DIGEST

I have Cottonwood trees that happen to be around a quarterwave high, and with time on my hands and lots of energy I tried tapping a tree with 6-inch nails and putting out some calls on 160. It was in fun, but I did make some contacts, and I joined the discussion, saying:

"When I played with this on 1.8 MHz with cottonwood trees, I found that 6-inch nails into a 36-inch diameter tree were long enough so I concluded it was the sap just below the bark that conducted the RF. And the fact that the inductive method of coupling works on a big tree would seem to confirm this. In my case, tapping with nails worked better than wrapping coils around the trunk."

The Fort Monmouth method involved wrapping coils around the tree to inductively couple the RF, and there was much doubt in the discussion group that the tree was doing anything – that the coils were doing the radiating.

I don't remember the details of what I tried, but I remember that I found there was little or no difference whether the coupling assembly was wrapped around a tree or standing alone.

Tapping into the cambium layer did produce results on both transmit and receive, and I "proved" at least to my own satisfaction that the tree was indeed taking power and radiating it.

YAGI-UDA ANTENNA

I wrote some time ago about the surprise the Japanese had when they found technical notes about a very directive antenna used for radar at a captured AA battery in Singapore. The story was basically that the Japanese had more or less forgotten they had invented it.

Some readers like historical notes, some dislike them, but I am passing on the essence of an article in *IEEE Antennas & Propagation Magazine* by Yasuto Mushiaki. It is brief and outspoken, and he writes from personal knowledge.

He says the first paper in English on the study of the antenna now known as the Yagi-Uda (but for a long time called the Yagi) was published jointly in 1926 by Yagi and Uda, but subsequent publications in the *Journal of IEE Japan* were under the name of Yagi only. And Yagi had applied in 1925 for a patent in his name only, without telling Uda, and removing his name entirely.

The 1926 paper explained why an element slightly shorter than a half-wave acts as a "wave director", and one slightly longer than a half-wave acts as a "wave reflector".

In 1944, Uda assigned to Mushiaki as a graduation study "the practical design method for Yagi-Uda antennas". In the course of these studies, the importance of the diameter of the

parasitic elements on their length was discovered. Details on this were published as a book *Yagi-Uda Antenna* in 1954.

That's my little contribution to assigning historical credit where credit is due.

REPEATER DIRECTORY 2014-2015

The Repeater Directory for bands from 29.5 to 1240 MHz (and ATV, APCO25, D-STAR, DMR, IRLP and Echolink) has something new. It includes an activation code for the appropriate Android App, good until the end of 2015. An Apple App was not yet ready in February 2014, but may be by the time you read this. Full-size, spiral bound ARRL #0215 US\$19.95; Pocket size #0208 US\$14.95.

2013 ARRL PERIODICALS ON DVD

All the issues of *QST*, *QEX* and *NCJ* in high resolution format, plus the source code for software projects, PC board patterns, and contest results. Needs 3 GB of hard drive space and preferably 520 MB of RAM, and Adobe Reader. ARRL #0093 US\$24.95.

AMATEUR RADIO TRANSCEIVER PERFORMANCE TESTING

WB1GCM, a Senior Test Engineer in the ARRL lab, explains in detail the specs and performance tables to be found in *QST* product reviews. He discusses the significance of each test, how the lab data relates to actual performance, and how each major test is performed. Written in easy to understand language. ARRL #0086 US\$22.95

EVEN MORE WIRE ANTENNA CLASSICS

Volume 3 of the ongoing compendium of articles selected from *QST* from 2002 on. This volume has articles on wire antennas portable, directional, multiband, single-band and stealth. There is also a table showing the specs of the AWG sizes of copper-wire types, taken from the 22nd edition of the *ARRL Antenna Book*. ARRL #0239 US\$22.95.

YOUR FIRST AMATEUR RADIO HF STATION

The book *Your First Amateur Radio HF Station*, by WB8IMY, is intended primarily for the newcomer to the hobby, but there is a lot of information here that you may have forgotten or never been really aware of.

After explaining the choices available in antennas, transceivers, amplifiers, computers and software, accessories, and advice on the use of utilities power, there is a comprehensive review of all the awards offered by ARRL, CQ, RSGB, IARU etc available for the certificate-hunter. You can get this information easily enough by searching the web, but here they are, all in one place. ARRL #0079 US\$22.95.

A WEST COAST LIGHTWAVE PROJECT

Steve McDonald, VE7SL / Markus Hansen, VE7CA

With the growing popularity of Web blogs devoted to Amateur Radio, the Internet has become a wonderful source of technical topics. One such blog caught my interest this past summer, when I began to follow the daily postings of Roger, G3XBM, in the United Kingdom (see note 1).

I found Roger's notes describing his LED lightwave experiments to be particularly inspiring. Further searching led me to the UK Nanowave Group and a series of *Radcom* lightwave articles that I found difficult to resist (see note 2). It seemed that many of our UK counterparts were becoming very active in building and operating simple LED lightwave stations and appeared to be having far too much fun in the process!

Roger's notes and the *Radcom* articles were passed to Markus, VE7CA and to John, VE7BDQ, both ardent homebrewers, who also believed the concept of communicating with lightwaves would be an interesting challenge.

The project was soon broken into four basic requirements so that work could begin:

- a lightwave receiver
- a lightwave transmitter
- an optical system and enclosure for both RX and TX
- a CW tone modulator

RECEIVING

It wasn't long before construction began on a basic receiving system designed around the G3XBM receiver and additional information found at Clint Turner's (KA7OEI) website (see note 3).

The receiver we chose to build was a G3XBM modification of one designed many years ago by K3PGP for his laser experiments. It consisted of a small inexpensive PIN photodiode (BPW34) driving a JFET amplifier, followed by several stages of audio amplification (see Figure 1). The completed receivers are very compact as can be seen by the one shown here constructed by John, VE7BDQ (see Figure 2 on the next page).

There are numerous inexpensive photodiodes that will work very well in this circuit. Although the G3XBM receiver used an SFH213 photodiode, we used BPW34's. This particular diode works best in the IR region, but still performs suitably in the slightly higher deep-red light part of the visible spectrum where we planned to transmit (see Figure 3).

To increase the light-gathering capability of the system, inexpensive plastic Fresnel lenses were purchased in order to focus incoming light onto the photodiode's tiny cell as well as for use

IMPORTANT SIDEBAR

Canadian Amateurs operating a Lightwave Optical system should be aware of Transport Canada's / Canadian Aviation Regulations with regard to any Directed Bright Light (DBL) source and operate in accordance to these regulations.

DBL's are potentially hazardous and penalties do exist for their inappropriate use.

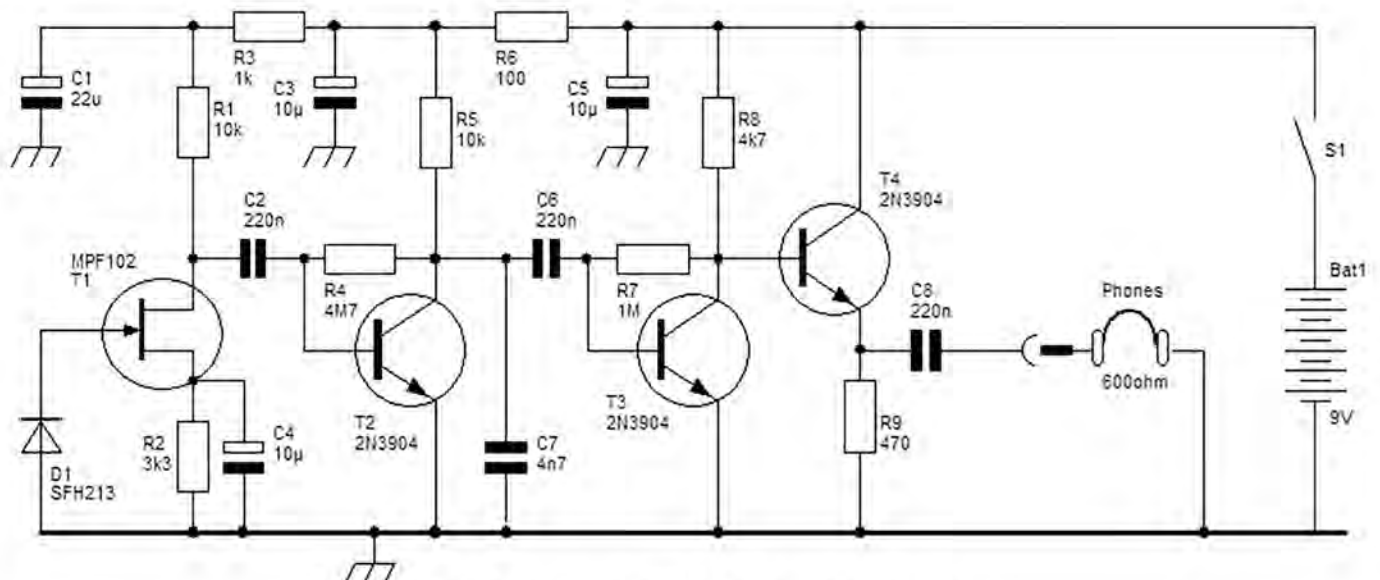
The Canadian Aviation Regulations (CAR) prohibit "projecting a bright light source" into airspace.

601.14

In this Division, "directed bright light source" means any directed light source (coherent or non-coherent), including lasers, that may create a hazard to aviation safety or cause damage to an aircraft or injury to persons on board the aircraft.

601.20

Subject to section 601.21, no person shall project or cause to be projected a bright light source into navigable airspace in such a manner as to create a hazard to aviation safety or cause damage to an aircraft or injury to persons on board the aircraft.



K3PGP derived 481THz receiver

Rev A 10.3.13 G3XBM

Figure 1: Schematic diagram of the basic lightwave receiver used at both stations; courtesy of G3XBM.

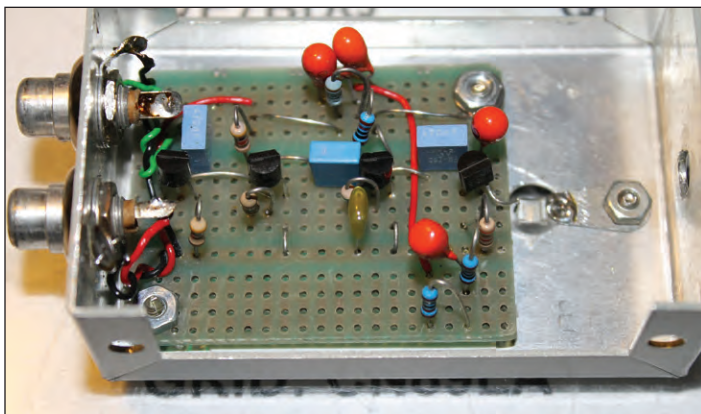


Figure 2: One of the finished receivers built by John, VE7BDQ.

in the transmitter (see note 4). John devised a brilliantly simple mounting support for the receiver using the split shaft locking collet removed from an old potentiometer. The mount allowed for easy three-axis movement (forward/backward, up/down, left/right) and precise positioning of the photodiode at the Fresnel's focal point. A similar mount was constructed for the transmitter's LED as well (see Figure 4).

The finished receivers turned out to be exceptionally sensitive. Initial nighttime listening tests revealed an unexpected abundance of interesting signals! One of the first signals heard was a repetitive low frequency "thump-thump", which turned

out to be the audio signature of flashing strobe lights from various aircraft, both near and far.

The receiver could easily detect the jet aircraft strobes from incoming planes heading for Vancouver International while they were still over 70 miles away above

the coastal mountains on their descent and still above 10,000 feet.

From my receiving location on the eastern shore of Mayne Island, in the middle of Georgia Strait, I could hear many different signals as I panned the receiver along the mainland's southern coast. Many sounded like radar sweeps and others like strobes, and all with different timing cycles and modulation rates. Some sounded rough and growly while others were pure and "T9".

Attesting to the receiver's sensitivity, most of the signals showed no visible sign of their presence to my eyes, even when scanning with binoculars to find the source. Once the receiving systems were working well, construction of the transmitters began.



Figure 4: The adjustable mounting system used for alignment of the LED and the receiver.

TRANSMITTING

The heart of the transmitter is a single Luxeon Red Rebel LED (see Figure 5 on the next page) mounted on a small heatsink.

The tiny LED operates at 2.4V @ 700ma while producing light in the deep-red

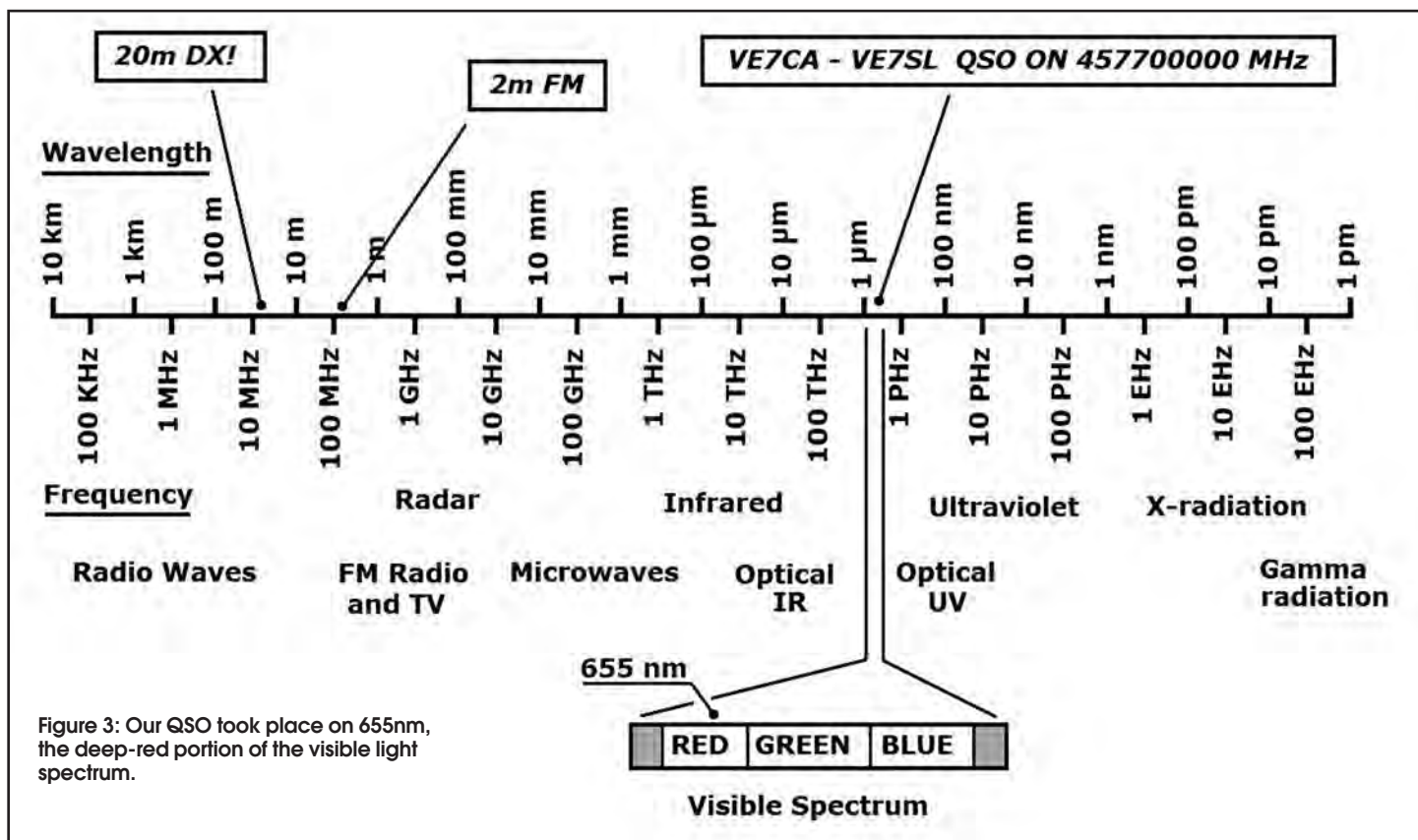


Figure 3: Our QSO took place on 655nm, the deep-red portion of the visible light spectrum.

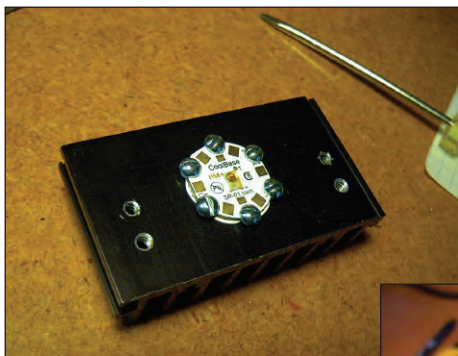


Figure 5 (top): The Red Rebel LED mounted on its Star Base and heatsink.

Figure 6 (right): The collimating lens and LED module on adjustable mount.

Figure 7 (far right): The VE7CA lightwave station ready to go.

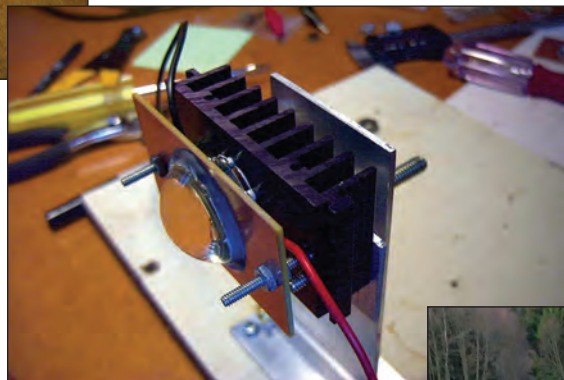
portion of the visible spectrum at 655nm or approximately 460THz (see the box at the top right). The LED is mounted directly behind an inexpensive 30mm glass collimating lens in order to have its light fully illuminate the Fresnel lens without any power-wasting “spillover” (see note 5). The collimating lens, along with the LED and heatsink, are all mounted on a sliding carrier similar to the one used in the receiver so that it can be precisely aligned behind the larger Fresnel lens (see Figure 6).

In order to keep the system as simple as possible and to give us a better chance of success, we chose to CW modulate the lightwave signal with a 600 Hz keyed tone. Several simple transmitting schemes can be found on Roger’s (G3XBM) blog where further details are available (see note 1).

A single 556 IC (dual 555’s) was employed as the tone source as well as for a dual-tone “beacon-mode” signal. The output from the 556 was used to drive a power MOSFET (IRF540) which controlled current to the LED (see Figure 8).

Both the transmitter and the receiver boxes, along with their respective lenses, were mounted side by-side to ensure that both were pointing at the same target as shown here by the VE7CA station ready to go (see Figure 7).

The final task was to ensure that the LED was accurately positioned with relation to the Fresnel. This required aiming the transmitter at a flat surface at least 150 feet away and finetuning the focus carriage. Once the correct position was found, it was possible to see the actual LED die and its two tiny connecting wires on the distant target image.



ON THE AIR

Since two complete stations had now been built, we anxiously waited for a break in the west coast rain for an initial “on-air” test.

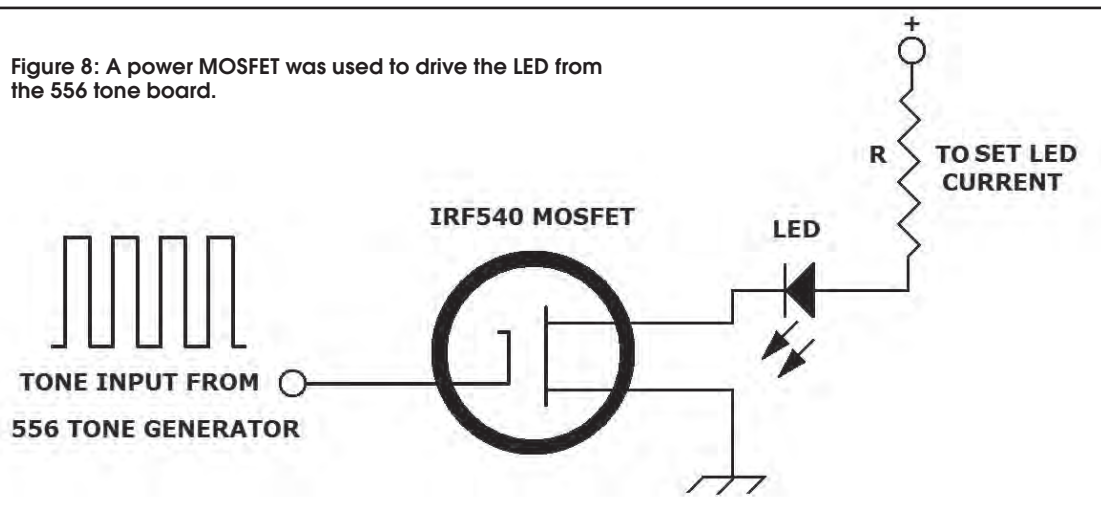
When the weather eventually broke, a test QSO was scheduled on a clear but cold evening. Markus, along with Jim, VE7BKX, set up his equipment near West Vancouver’s Cypress Provincial Park enroute to the ski hills, giving him a clear line-of-sight path to my front yard location on Mayne Island, 54 kilometres away on the far side of Georgia Strait (see Figure 9 on the next page).



Switching to straight CW and exchanging signal reports and grid square information made the contact “official”, allowing us to then have a nice 20 minute CW ragchew before it became too cold on our fingers to continue (see note 6).

Interestingly, we were able to work full break-in style (QSK) as the transmitters did not interfere with the continuously running receivers, a nice surprise.

Figure 8: A power MOSFET was used to drive the LED from the 556 tone board.



THz

“THz” is the abbreviation used for “terahertz”, the unit of electromagnetic wave frequency equal to one trillion hertz (10^{12} Hz). It is mostly used to express the frequencies used for infrared (IR), visible and ultraviolet (UV) radiation. 1THz has a wavelength of .3mm.

Shortly before dusk, I pointed towards Markus’s location and activated my transmitter in the beacon-mode. Markus heard me almost immediately and, after refining his alignment, replied by activating his beacon signal. Not knowing what to expect in the way of signal levels, we were all astounded at the strength of our signals – a true 599 or better!

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Our next goal is to move further afield and try to complete a QSO at a much further distance.

We are also considering adding voice modulators to the system and possibly shifting to the IR range for better efficiency.

In addition, John is interested in trying some "non-line-of-sight" (NLOS) experiments to see if it is possible to bounce signals across Georgia Strait from the cloud layer bottoms. One of the project's major goals is to try to encourage similar activity amongst Canadian Radio Amateurs and to encourage the joy of homebrewing your own station equipment.

If you intend to operate an LED lightwave system you must:

- 1) pay proper attention to where the system is deployed. Such a system must not be operated near airports or pointed towards aircraft and there are severe penalties for doing so (please read the sidebar for more information)
- 2) treat an LED light system with care. Although not physically damaging like laser light, modern LEDs are very bright and should never be looked at directly.
- 3) Be aware of other nearby activity. Although not physically damaging, a bright LED light can cause momentary distraction to automobile drivers or onlookers.

We hope that you will check out some of the references and links provided and get in on the fun as well. See you on 460THz!



Figure 9: The 54 kilometre optical path between Mayne Island and West Vancouver; courtesy of Google Maps.

NOTES

1) Several pages of Roger's optical adventures can be found online at: <http://g3xbm-qrp.blogspot.ca/search/label/optical>

2) The four-part *Radcom* article, "Adventures In Optical Communication" can be downloaded from <http://groups.yahoo.com/neo/groups/UKNanowaves/info>. It is well worth joining the group just to read this excellent series.

3) Probably the Web's best overall source of Amateur optical communications information can be found at: http://modulatedlight.org/optical_comms/optical_index.html

4) The Fresnel lens model A260 was purchased at: <http://www.3dlens.com/shop/largefresnellens.php>

5) The inexpensive 30mm PMN collimating lens was purchased at: <http://www.surplushed.com/>

6) To see a short cellphone video of signals received near Cypress Park by VE7CA, visit YouTube and search for "VE7SL LW".

Steve McDonald, VE7SL, was first licensed as a teenager in 1963 (VE7ANP). He is now retired on Mayne Island, BC, after teaching high school Tech-Ed for 35 years. "My radio time is spent homebrewing and DXing, with a focus on 6m, LF and our new 630m band. I maintain my 'VE7SL Radio Notebook' website at: <http://members.shaw.ca/ve7sl/> as well as a new Blog at <http://ve7sl.blogspot.ca/> Please stop by."

Markus Hansen, VE7CA, has been an Amateur since 1959. He is now retired and enjoying a little more time for experimenting. Markus has had several articles published by the ARRL and one by RAC describing different antenna projects and his homebrew HBR-2000, a 160 to 6 metre full-fledged transceiver. He continues to be active on 160 to 6 metres mostly operating CW and some AM on 15 metres with a restored Viking Range and Collins 51j-4. Markus maintains a website at ve7ca.net describing many of his ham-related experiments and restoration projects.



Val Lemko, VE5ACJ
 1125 Iroquois St. W.
 Moose Jaw,
 Saskatchewan
 S6H 5C1
 E: ve5aq@sasktel.net

YL NEWS AND VIEWS

OUR YL PROFILE: JEANNINE OPSETH, VE5JCO

Jeannine is a Girl Guide Leader and she has taken a Ranger group to England and Switzerland and has stayed at Our Chalet in Switzerland (<http://www.ourchalet.ch>). I know a bunch of Guiders are very envious.

She got into Amateur Radio more or less to keep track of her family while camping. Jeannine and her family have camped at Wapiti Lake Provincial Park in British Columbia and the 2m rigs come in real handy when her OM is backing the camper up and she doesn't have to yell or use hand signals to let him know where and when to stop. I can assure one and all that I understand as I use the same trick when we go camping.

Jeannine has been an active participant over the year in the Melfort Amateur Radio Club's activities. She has assisted with the MS Walk for the past 15 years. She also helped with the Multi Run in 2011 and she also knows all about relaying messages.

One year Jeannine and the family took the camper to Ontario for 23 fun-loving days. It took them a week to get there and they kept changing campgrounds ever few days – just because they could – and they had a great time. They finally ended up in Ottawa and then they headed back home to Melfort, once again hitting different campgrounds and meeting new people. In addition to her Amateur Radio activities, Janine's other hobby is cross-stitch.

Jeannine and Bayne have three children ages 10, 15 and 17. I may be off a bit on the ages, but I am sure Jeannine will forgive me.

Thanks so much for your story Jeannine and I do apologize for not getting it into my column earlier.

Yes folks, summer is here in the Prairies as I write this column. It is not quite as hot as British Columbia at the moment (July) or as hot as it is down east, but for Saskatchewan it will do. Mind you, we do have mosquitoes and some of them seem bigger than the house. Not that we had that mild of a winter, but it was not as bad as some folks had it.

The Saskatchewan Amateur Radio League (shown in the photo) hosted the Saskatchewan Hamfest on July 5 and we had a pretty good turnout.

We even had a visit from a young couple from Port Dover, Ontario

who were travelling through Saskatchewan. Unfortunately, I didn't get his XYL's name but his name is Ed Atkinson, VE3CIM. Hopefully they are getting all settled and we will hear him on the air soon.

Ladies, I really need you to send me an email with your phone number so that I may contact you and get your stories. I know there are a lot of YLs out there who say, "Nobody is interested in my story, so I won't bother". Well I am. If we don't tell folks that we are also Amateur Radio operators, then who will. It sure helps on a résumé as it shows your future employer that you know some electronics. It's time for us to get up on our soap boxes and tell the world. I don't care if you are a "newbie" or a seasoned veteran, please send me your story.

CLARA NETS

Well since this is the September/October issue, ladies please don't forget about the CLARA nets. You do not have to be a member of the Canadian Ladies Amateur Radio Association (CLARA) to join in and meet new friends. We are very open and really do love hearing a new voice. Please check out our website at www.clarayl.ca.

40m Net: 7.055 MHz

Tuesday: 1400 UTC Winter and 1500 UTC Summer
 September to May

20m Net: 14.120 MHz

Tuesday: 1700 UTC – September to May

80m East Net: 3.750 MHz

Monday 7 pm Eastern; 8 pm Atlantic
 September to May

Thanks everyone for taking time to read my column. I do enjoy writing about the adventures of the ladies.

That's all she wrote folks, take care, hope you all had a wonderful summer and now it's time to get back on the air.

33, 73, 88 or whatever the case may be...
 Val, VE5ACJ



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Norm Rashleigh, VE3LC
Bryan Rawlings, VE3QN
Steve Regan, VA3MGY
Gilles Renucci, VE2TZT
Earl Richardet, VE7QJ
Dennis G Ritchie, VE3DXZ
Jeff Robbins, VE3JTR
Ed Roberts, VE3KSW
Bernie Roche, VE3OTR
Peter Rogers, VE3ETR
Bruce Roney, VE3BER
Donald Rowed, VE3KIL
Gerry Saelens, VE7DCW
Edward Samborski, VE3TAS
Patrick Sandi, VE7SDI
Bill Scholey, VE7QC
John D Scott, VE1JS
Joseph T Scott, VE3ADB
David Scott, VE3ZZU
Ian Seddon, VE3HUT
Ellis Seddon, VE4AJ0
Bill Sheldrick, VE6ILE
Kieran Shepherd, VA3KS
Robert A Shkuratoff, VA7DIV
Chad Shoaf, VA6TT
George B Simpson, VE6HX
Ron Sinclair, VE3JRN
Gary W Skett, VE7AS
Thor Skotar, VE3GXV
William E W Skuta, VA3WEW
Robert A Smith, VE3RSG
Ian Snow, VA3QT
Dave Snyder, VE4XN
John Sobkowicz, VA6GEO
Margaret Somerleigh, VE3OWL
Patrick Speer, VE7PJS
Mark Spencer, VE7AFZ
Noel T St-Amand, VA3TS
Mike Stafford, VE6MEX
Alan Steele, VA3STL
Rob Steenweg, VE1CHW
Dean Stennes, VE7NEW
Al Stephens, VE3NXP
Jeff Stewart, VA3WXM
Jack Summers, VA3XR
Neal L Sunderland, VA6NLS
Hiroshi Takahashi, VA7LET
Ivan G Taverner, VE6RC
Ann Tekatch, VA3NOE
Yori Tsuji, VE4ACX
Ian Graham Turnbull, VE7TGI
Al Tyson, VE3EXE

W L Underwood, VE1WLU
Bill Unger, VE3XT
Henry Urbanowicz, VE3OEO
Ronald Vadeboncoeur, VE3REV
A E Vaillancourt, VE3DPZ
Hudson C Vallieres, VE9HCV
Todd Van Norman, VE7GBO
Bernie Van Tighem, VE7BVT
Alex Vandermeij, VE3LEX
Marinus Vanderminnen, VA6OPA
Robert Vanderminnen, VA3RMV
Maurice-André Vigneault, VE3VIG
Ron Vollick, VE3GGX
James A Webb, VE3WA
Andrew Webb, VE6EN
Joel Weder, VE6EI
Andrew C Wells, VE3WEL
Ralph Welsh, VE3RWO
Randy Mark Westby, VE6DFC
Fred Westlake, VE3FEW
Garth Wetherall, VE3YC
Peter Wetton, VA3PRW
John E White, VA7JW
Kyle White, VE9KTV
Chris K Wiesner, VA3SM
Brice Wightman, VE3EDR
James A Wilkins, VE7UUV
Stan Williams, VA7NF
Brian Williams, VE3KNE
Ken Williams, VE9KW
Wayne F Willis, VE5WFW
Bruce Winter, VE7HBW
Harold H Wirth, VA3HHW
John Wiseman, VE7BVS
Timothy Wood, VA7TIW
K Scott Wood, VE1QD
Allen Wootton, VE7BQO
James E Wyse, VO1CPZ

NEW RAC MEMBERS NOUVEAUX MEMBRES RAC

Roy Abo, VA6RBA
James Colin Aldous, VA7KR
Rudy John Noval Ambata Jr, DU7RJA
Tim Andrew, VA3TMA
Patrick Anthony, VA3PAF
Mark Aylett, VE7NZK
Rodney Bedford, VE3UFC
Douglas Paul Behl, VE3XDB
Gordon R Bennett, VE6WTP
David Bergeron, VE2DEE
Galdino Besomi, CE3PG
Morcelq Besomi, CA3FIX
Mario Bevilacqua, VE3APM
Les Bluestein, VA3LBR
Stéphane Bois, VE3SBC
Tom Borgman, KB1ZXE
Paul Briscoe, VE3GPB
Patrick David Buick, VE9ES
John (Jack) Charles Cain, VE7DBK

Douglas Cameron, VA4DEC
Jim Phillip Cheppenken, VA3CJ
Adrian Ciuperca, K08SCA
Frederick Alexander Clark, VA7AYE
Richard Clausi, VE3DCC
Lawrence Stephen Coker, VE6LS
Johnny Cormier, VE9NX
Robert Currie, VA3UDR
Jeff Dale, VA3ISP
Steve Dauphinais, VE2TTF
Cornelis de Groot, VA3CGR
Bruno Desbiens, VE2ADP
Louis Descoteaux, VE2LDP
Remi Deveau, VE7NXF
Gilles Dorais, VE7CKB
Gatze Drayer, VE5EDE
David Morris Eaman, VE7MDE
H Jordan Elliott, VO1HJE
Brian Alexander Elliott
Christian Forgues, VE2CFO
Kenneth Gagnon, VE3KGV
Joseph Clifford Gamble, VA3GJF
Ivan K Garnett, VE3IKG
Christopher Gautreau, VA3CEG
Thérèse Gilbert, VA3TGI
Mathieu Goulet, VA3ECM
William Geddes Greenfield, VE7VI
Jean-Francois Grun, VE2VHE
Marco Gudiel, TG9AGD
John Gyroffy, VA7ICZ
Richard Henderson, VA6RIC
Howard James Hepburn, VE6GT
James Rutherford Hogg, VA7JH
Jimmy D Houssen, VE9JDH
Daryl Jenken, VA6DAJ
Peter Jensen, VE9PEJ
Ian H Keith, N8IK
Randall Stanley Keizer, VE9NKD
Maher Khalil, VE6MMK
Glenn Allison Killam, VE3GNA
Koichi Kishimoto, VE7KKI
Frank Krizan, KR1ZAN
Louis Landry, VA2QLL
Trevor Thomas Lauder, VA6TTL
James Robert Leary, VE7BCJ
Patrick Leduc, VE2DLA
Crista Leroy, KD4KPS
Sam Leung, VA3NOM
Ron Litt, K5HM
Mark James Lofthouse, VA7GRS
John (Ian) MacBrien, VE3ERL
Jordan MacDonald, VA7CFV
Eugene Mah
Jude Mak, VA3ZOY
Ross Manning, VE9RW
Daniel C Marsland, VA7DCR
Matthew William Martyn, VA3MWM
Candace McCool, VA3KKE
Ralph McDiarmid, VE7DQS
Randy Douglas Miller, VE7CRX

Michael Moedt, VE4BPM
Mark Mokaski, K1PU
Raymond Nahl, W2CH
Thomas H Nail, WA2BCK
John Newman, VA1JGN
Shirley Newman-Jones, VA3NSE
Mark Nowicki, VE3MNA
Ron O'Neill, VA3ZNU
Antonio Ojeda, VE2ATS
Kent Olson, KA0LDG
George Onsen, VA3OTG
John Paleta, VA1UFA
Mark Pan, VA7PWK
Ginette Pereira, VA3SEW
Mike Peric, VA3AVG
James M Powell, VE7JMP
Richard N Powell, VE5RNP
Jordan Pringle, VE7JIS
John Putters, VA7JPT
Doris Quiring, VE5DJQ
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Harry L Rayner, VE7WHY
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Victor M Rhys-Williams
Don Richards, VE3IDS
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Bill Rohde, K3XA
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Serge Tardy, VE2STI
Matt Thiselton, VA3OZI
Andrew Thompson, VA7DVT
Jim Ussdiliu, W1EQO
Jean-Pierre Vallée, VE2VJP
Mihai Varlan, VA3MVA
Michael Vencio, VE3MVE
William M Verebely, W4WV
Sylvain Vincent, VE2SVR
Brian Vogelaar, VA6BAV
Peter J Von Zuben, VA6PZ
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Michael James White, VE3MWI
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Stephen Zephyrine, VA3SZT

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- Automatic Mode Select (AMS) Function
- Snapshot Picture Taking Capability
- Digital Group Monitor Function
- Smart Navigation Function



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144/430 MHz DUAL BAND
C4FM/FM DIGITAL REPEATER

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All Things Digital

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015

Robert C. Mazur, VA3ROM

E: va3rom@gmail.com

W: www.va3rom.com



THE BROADBAND HIGHSPEED AMATEUR [RADIO] MULTIMEDIA NETWORK (BBHN HAMNET)—PART 3

Note: Parts 1 and 2 of this column appeared in the May-June and July-August issues of TCA.

In this part, we'll look at streaming video (with two-way) audio using IP (Internet Protocol) cameras with a commercial program called "Blue Iris", and then at streaming two-way video/audio using a free Skype-like program called "Jitsi". I've written supplementary BBHN articles (posted on my website), and one is on using the free "iSpy Connect" software with webcams (either external USB or built-in) and you may want to read it first before proceeding on with this article.



LIGHTS, IP CAMERA, ACTION!

An IP camera is a very small and portable microcomputer, with built-in video camera, IR (infrared) vision, microphone/speaker, plus a webserver with wired/wireless

network connectivity. It doesn't require a connected computer like a webcam does – all it needs is DC power and an in-range wireless/wired network (Figure 1).

Most have remote control features called "PTZ" (pan, tilt and zoom), with the pricier ones having optical instead of digital zoom capability plus higher video resolution(s). They are fairly easy to program using any web browser to customize the IP camera webserver settings (Figure 2), and the browser allows for basic PTZ control and video/audio streaming (one-way) which may suffice for some applications or testing (Figure 3).

Figure 1 (above photo): Foscam IP camera mounted to portable BBHN Mesh Node + AP.

Figure 3 (at right): IP camera remote control video feed via web browser.

Real-time H.264 IP Camera Monitoring System

Device Information
Date&Time Settings
User Settings
Basic Network Settings
Wireless Settings
Remote Access
Email Settings
FTP Settings
Auto Capture
Motion Detection
Alarm
Schedule
Video
Image Settings
Audio Settings
Initialize
Back

Device Information	
Device ID:	IPCAM
Device Type:	C1F1S0Z0N0P1L0
Network Connection:	LAN
Current Client:	1
Device Firmware Version:	V3.2.1.1.1-20120815
Device Embeded Web UI Version:	2.5.08.3
Mac Address:	00:0d:c5:d7:30:42
IP Address:	10.208.247.61
Subnet Mask:	255.255.255.248
Gateway:	10.208.247.57
Primary DNS:	10.208.247.57
Secondary DNS:	
Start Time:	2014-7-1 10:13:46
SD Status:	A card. Available space:552MB Capacity:950MB
Browser SD Card .. Format SD Card as fat32	

Figure 2: IP camera web browser configuration.

Newer IP cameras have dedicated iDevice (Apple/Android) applications to connect via the Internet to the camera (Figure 4 on the next page). The apps are generally easy to use but are usually limited to

private streaming because most people don't want others accessing their feeds, however EmComm (Emergency Communications) Mesh networking is different since we want as many people

Real-time H.264 IP Camera Monitoring System



as possible who want or need a video/audio feed to have access. Minneapolis was in the process of building a city-wide Mesh network system when a major highway bridge collapsed (2007); IP cameras were installed during the incident and they (and the Mesh network) greatly assisted the city's emergency response teams.

BLUE IRIS

Disclaimer: I have **no** fiduciary interests in either Blue Iris or Foscam.

While iSpy Connect/iSpy Server are very good, free programs for general webcam use or simple IP camera PTZ control and video streaming, they aren't easy to set up (it was impossible for me) for IP audio streaming so you can both see and talk with someone on the scene.

After searching for similar programs I found Blue Iris (comes with 15-day free trial) and in under five minutes both my IP cameras were in streaming video and two-way audio (Figure 5).

Blue Iris setup on the host/control computer is a breeze. It comes with many, easy to use network features, plus the professional version can handle up to 64 cameras (the basic version only one).

At the other end of the feed, you connect the IP camera to your Mesh node router with an Ethernet cable (preferred) or use the IP camera's built-in Wi-Fi to connect through a wireless AP (Access Point) node if one is available.

QUICK START

VIDEO

- 1) Click the "Add camera" icon. ("Network IP camera configuration" form appears).
- 2) Type in the camera's IP address, port, user name/password.
- 3) Select the camera model from the drop-down pick list.
- 4) Click the "OK" button

AUDIO

- 5) From the "New camera" form "Audio" tab section, click "Enable audio capture hardware" checkbox.
- 6) Click "OK".

That's it! If the IP camera is detected and configured properly, you'll soon see and hear the live video/audio feed.

Anyone else, who knows the IP address and name/password, can also access the IP camera or you can provide a separate feed from your computer using Blue Iris (the better option).



Figure 4: IP camera remote video and audio feed via proprietary iOS software running on iPod (my first, cheap IP camera's full-time IR filter in daylight turns green colours to violet).

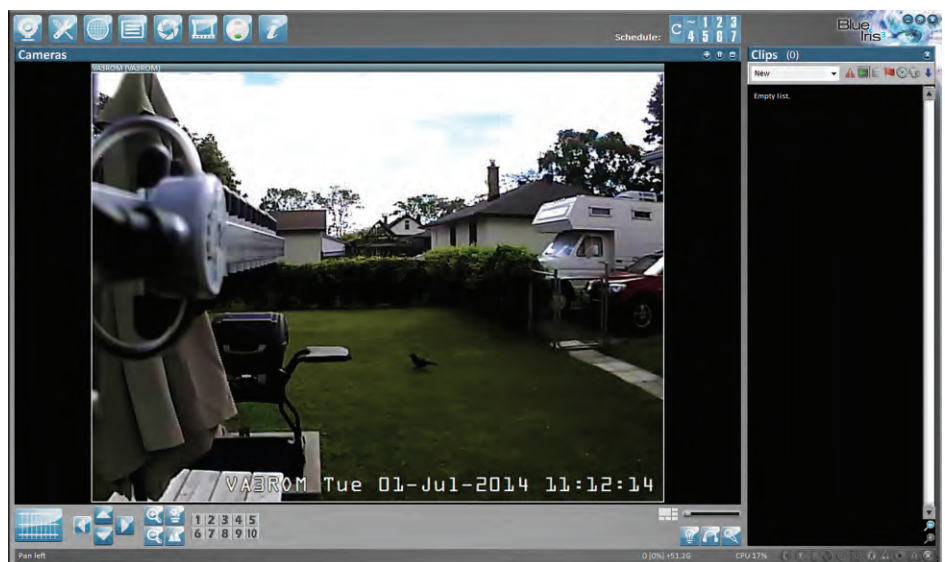


Figure 5: IP camera + Blue Iris remote control video feed.

The rest of the IP camera settings are user preferences like "Record [video/audio] on motion detection", sending email alerts, posting snapshots to a website, recording scheduling, and so on. For BBHN use, I turn off all the extra features and control things manually. Blue Iris is installed on my Windows tablet and laptop and the registration number can be easily transferred from one to the other, but you can only run the program on any one device at the same time (on the same network).

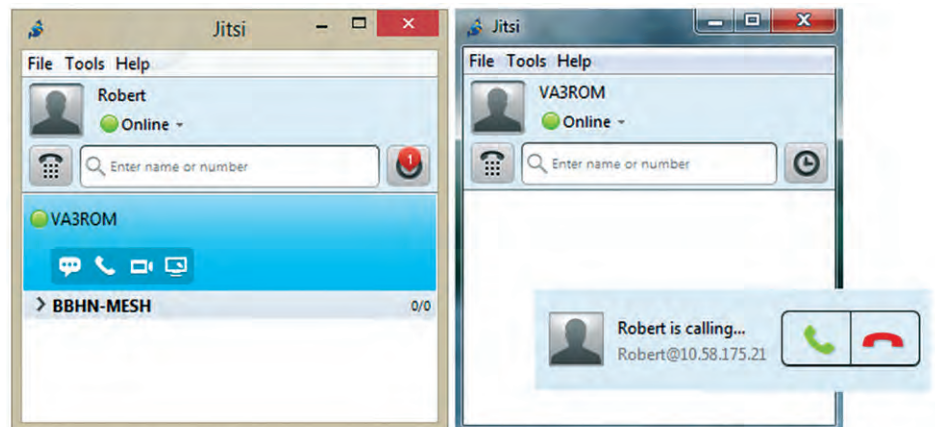


Figure 6: Jitsi control windows (left) Windows 8.1 tablet (Robert) connecting through wireless AP to remote Windows 7 laptop (right) connected to tethered Mesh node (VA3ROM).

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JITSI ME LIKE SKYPE

You may already use Skype – or have at least heard about it – but for those who haven't, Skype is a popular free/commercial VoIP (Voice over Internet Protocol) program used for video/audio (face-to-face) "phone" calls, conference calls, texting, long-distance education, meetings, etc., using a computer's (or iDevices') built-in or added-on multimedia features like webcams (USB or built-in), speakers, microphones or other input devices, plus an Internet connection (wired/wireless). Unlike IP cameras, you can stream video/audio back and forth in two or more directions and have many connected participants.

Jitsi (Bulgarian for "wires") is a free program (formerly called "SIP Communicator") supporting several operating systems and many popular VoIP/text/chat systems (see Figure 6 on the previous page and Figure 7 on the right). Because of this, many people are switching to Jitsi for regular Internet VoIP use, but the real power comes from its ability to work "off the grid" and make connections without any Internet connectivity by creating what are called "registrars" [sic] SIP (Session Initiation Profile) accounts. The SIP is a digital communications methodology developed for VoIP which allows everyone on the same network to communicate (peer-to-peer, one-to-many and many-to-many) without needing to route through a central Internet VoIP server.

I run Jitsi on all my computing devices and especially like using it with my Windows tablet using an AP to connect to my personal BBHN Mesh (Figure 8), which is used for my astronomy, video/photography and radio hobbies.

Normally, BBHN users with Mesh node routers tethered to their laptops, desktops, etc. use Jitsi to contact others via the SIP account which is "branded" to the specific IP address of the router/computer pair

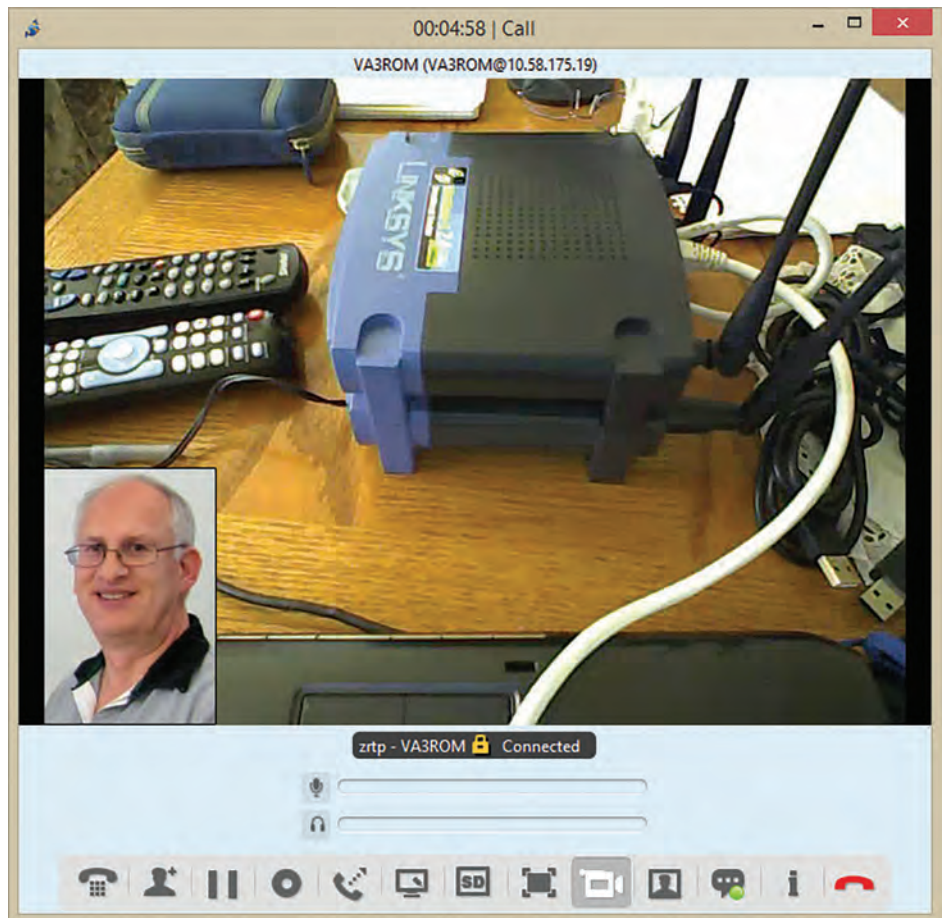


Figure 7: Jitsi streaming video + audio (looking at tethered BBHN Mesh + AP nodes) from VA3ROM to Robert. Picture-in-picture video or static images can overlay the main video display.



Figure 8: Jitsi on my Windows tablet connected the BBHN Mesh via Wi-Fi AP.

because a static IP address is required at all times for the SIP (it's "@" + the IP address of the node). An iDevice can use an AP to connect to a BBHN SIP user, but the opposite isn't as easy because the iDevice's IP address can change since it depends on the specific AP path used unless the iDevice user stays in one spot and always uses the same AP. You'll understand this point much better once you start using Jitsi.

The Jitsi website has easy to follow program setup and use instructions. For the most part, it's a very easy and intuitive program to use, especially if you already use Skype.

MY FINAL

Well, enough meshing around – for now. This one aspect of Amateur Radio is growing by leaps and bounds.

Mesh networks are really big in the commercial world and you're already using them without even knowing it!

The brilliant BBHN programmers have released new firmware for Ubiquiti routers, 5.8 GHz routers, plus a firmware upgrade for the LinkSys WRT series. And it's not just limited to 2.4 GHz and above because the 70 cm band is also being used by Amateurs with crossbanding between the GHz routers!

In my next column, we'll revisit microcontroller units (MCUs) and have a look at the Arduino Uno. TEN-TEC has created the first open-source code QRP CW transceiver (Rebel model 306) built around the Digilent chipKit Uno32, and now any Amateur can customize how his/her transceiver operates, post the changes on the Web or download modifications made by others, and the 306 is selling faster than the company can produce them! – 73

REFERENCES AND RESOURCES

BBHN (HSMM-MESH)

<http://tiny.cc/r8kyix>

Blue Iris

<http://tiny.cc/g9kyix>

Foscam Canada

<http://tiny.cc/3alyix>

iSpy

<http://tiny.cc/hclyix>

Jitsi

<https://jitsi.org/>
<http://tiny.cc/86kyix>

Minneapolis Bridge Collapse

<http://tiny.cc/pdlyix>

Wireless Networking on 420 MHz

<http://tiny.cc/relyix>
<http://tiny.cc/v4kyix>

All Things Digital

<http://tiny.cc/cwlyix>



RANDOM THOUGHTS...



Dirk Moraal, VY1NM
Box 75
Tagish, YT Y0B 1T0

The Friendly Grey Line

I like efficiency.

I don't mean I myself am particularly precise or even accurate in what I do, far from it. But I like to get the most out of small packages.

We all understand getting more distance per unit of fuel, for example. I used to annoy my teenage buddies by getting better gas mileage from their cars than they did.

I appreciated small cars when everybody drove road barges.

This also translated into radio, and especially low power and portable operations.

Maybe that is why I wanted to operate QRP right from day one. I was told no new Ham did that. I was told I needed to start with high power so I wouldn't become discouraged. But that rule of thumb did not apply to me and I set off on my own path.

I recall laughing at comments I heard on air about saving money on the hydro bill by turning off the amplifier. I must have saved enough for a new radio.

Like most HF enthusiasts I was aware of the Grey Line and this came back to me when I started Mobile Ops not too long ago.

By coincidence, I went on the air just about the time the Grey Line went over my QTH, and headed off to the Canadian Arctic islands, Greenland, Jan Mayen Island, Eastern Europe and on towards the Adriatic.

No one was more surprised than I when I found myself involved in several DX QSOs with Latvia, Poland, Italy, Belgium, Slovenia, Slovakia and Hungary – many thanks for the QSO and antique QSL card Zoli, HA1AG, you made my day. I am pleased to remember that the radiator of the mobile antenna was a tiny wire only 88.9 centimetres (35 inches) long and that Gyor, Hungary is 7,766 kilometres away via the pole. Yeah. DX with 35 Watts, mobile.

Lesson: To be more successful with a tiny antenna one must pay attention to the Grey Line.

Curiously, a short while later I had a mobile QSO with Tim, NL8F, a rather rare IOTA station (NA-059) according to my friend Bill, VE4KZ, who is always happy to try to educate me on such important little details. NL8F is on Unalaska Island in the Aleutian Chain off Alaska, 2,058 Great Circle kilometres, beam heading 264° from my QTH had I been using a beam, and he has a six-hour plane ride to get from there to anywhere with pavement.

I had a proper chat with NL8F on that beautiful evening at dusk, which at my latitude and time of year is late and protracted.

A clear sky, a wide horizon all ablaze with orange and yellows transforming slowly as we spoke into reds and blues and purples till all was gone but the glowing sky, which remained a deep luminous blue studded with early stars, and all the while I was comfortable and warm inside the minivan, with the Yaesu 857 bright like a tiny Christmas tree with its 15 little assist lights all aglow, whilst chatting about DX ops with a guy who really knew what he was talking about.

He at least was not at all surprised at the reach of the little antenna. "Grey Line", he said, more than once. "That is the key".

He continued: "Make sure you always pay attention to the Grey Line". And I promised that henceforth I would do so.

Experience with any activity nudges either in the direction of your chosen path or guides you along another one and Amateur Radio is no exception. Now and then something you always knew but never gave much thought to starts to make a heck of a lot of sense. And so it is with the Grey Line.

During a previous CQ contest I was monitoring the activity and noticed that Zone 20 had a high percentage of YO stations on the air, and awareness formed that the Grey Line might be over Romania just then and that one might care to check and find out for sure. Well of course it was. But I knew that.

Feeling quite contented with the outcome, I turned off the radio and let my thoughts go back to that beautiful evening when the bright colours met the dark night and I became a better operator thanks to a tiny antenna, two friends, and my new buddy the Grey Line.



Phillip Boucher, VE3BOC
E: phillipboucher@gmail.com
www.phillipboucher.com

Sometimes we Amateurs have an opportunity, through voluntary purpose or the fickle finger of fate, to do some actual electronics work to get our signals out over the air. Think of the antenna for your radio. What if you had to replace it in an emergency or had to cut one down that was too long? What if you wanted to create a simple dipole antenna from some wire and coax? How would you know what length to cut it? You could guess, but why not be more precise? Use a formula!

A very simple formula does exist that lets you cut any wire or rod into a precise quarter-wave length that will give you a good SWR on the frequency you want to operate on, and a relatively decent SWR on the band you want to operate on. All you have to do is use 2808 divided by the frequency!

For example, you may have a mobile antenna that is longer than is required to operate on two metres. You know you need to cut it around 18 or 19 inches for a decent SWR match. You want to operate on the whole repeater section of the band. Take 145 to 148 MHz, a 3 MHz spread and go for 145 plus 1.5 (half of three) to get a middle frequency of 146.500 MHz. Use the formula 2808 divided by 146.500 to get a quarter-wave length of 19.167 inches. This length will give you a good SWR across the

FRESH ON THE AIR

— ADVENTURES FOR THE NEW AND BEGINNING HAM

How to Cut an Antenna to the Proper Length

repeater section of the 2 metre band. For 70 centimetres, you may want to use a middle frequency of 445 MHz, with 2808 divided by 445 equalling 6.31 inches. This will cover 440 to 450 MHz.

To make a half-wave radial simply use 5616 divided by the frequency. Want a 5/8 wave whip, radial or dipole? 7020 divided by the frequency.

You can use these formulas to cut your whips and dipoles to the length you need to operate within an Amateur band, or for the best operation on one particular frequency. So if your mobile antenna breaks and all you have is wire, you can make a quick interim mobile antenna by cutting the wire to the length you need. And you can field engineer a dipole antenna as well for emergency use in the field – or at home as a temporary base antenna – quickly and easily.

Using these formulas will enable you to experiment in making your own antennas.

What Frequencies Should Really Be in Your Memory Channels?

With all the memory channels available on modern Amateur Radio equipment, it can be intimidating to decide just what frequencies you should be programming into them. Below is a list of the most common important frequencies every Amateur should have in their radio.

Local club, ARES, CanWarn repeaters: These will be repeaters in your local area or range of operation, such as when you travel outside of your home area. Your local and club repeaters will probably be the repeaters you use most often for the majority of your Amateur communication activities. Many local and club repeaters also incorporate ARES and CanWarn communications as well, and some local repeaters may be designated for ARES or CanWarn use exclusively.

146.52 & 446.000: These are the recognized national simplex calling channels and may be monitored on a regular basis by local Amateurs. Standard procedure is to contact your party on a calling frequency first then move to another frequency to carry on your conversation. Emergency communications from Amateurs in need of assistance may also be initially called on these frequencies before the party in need of help moves on to other frequencies or repeaters.

Local simplex frequencies: Many clubs and ARES organizations have designated frequencies to be used as local simplex frequencies for

alternative communications when the repeater is in use for emergencies or is down, or as supplemental frequencies to be used for local Amateurs who are close in range and do not want to tie up the repeater. You can also program in simplex frequencies that you and your friends use on a regular basis.

Industry Canada National Search and Rescue 149.080 MHz: This frequency is important to have in your radio as it is the national frequency to be used during official Search and Rescue operations for total interoperability between government and Search and Rescue agencies and organizations. When Search and Rescue operations are ongoing in your area, this frequency is one to monitor in case ARES call-ups are required. Amateurs are able to use the frequency as well as long as you are sponsored by an agency and obtain proper licensing from Industry Canada.

Weatheradio Canada: The weather can change drastically from one moment to another in this great country, and being able to know what the weather conditions are at any time is extremely important. Programming the Environment Canada's Weatheradio frequencies into your radio lets you access weather reports, emergency conditions and pending severe weather in major cities and regions throughout Canada. These frequencies are great to have programmed in alongside a CanWarn repeater frequency (all in MHz): 162.400, 162.425, 162.450, 162.475, 162.500, 162.525 and 162.550.

Provincial Public Service: If your province has analog simplex or repeater frequencies used by emergency public service providers, then you should program these into your radio as well. Monitoring these frequencies may give you a heads up when an emergency is occurring in your area. For example, in Ontario, we have 142.770 MHz, the Provincial Common police frequency; 154.070 MHz, the Provincial Mutual Aid fire frequency; and 150.100 MHz, the Provincial Common ambulance frequency.

Programming these frequencies into your radio will enable you not only to enjoy Amateur Radio communications but keep you aware of situations that may affect the safety of your property and family.

Transmission Tidbit:

Got a short joke or pun about Amateur Radio? Send it in to me and see it in a future column! I would love to hear from our new female and very young Hams on your first impressions of the hobby, both positive and negative. Write me via the magazine; email me at phillipboucher@gmail.com or via my website at www.phillipboucher.com.

RAC CANADA WINTER CONTEST 2013 RESULTS

Sam Ferris, VE5SF and Bart Ritchie, VE5CPU

Participation in the 2013 running of the Canada Winter Contest was down slightly from last year with a total of 730 entries received. Conditions were slightly better than the previous year as reflected by slightly higher scores of the various category winners. This year four new records were established: Single Op All Bands CW (VE7JH); Single Op Single Band, 20 metres (VE9HF); Multi Operator, Single Transmitter Low Power (VA3GKO); and Multi Operator, Single Transmitter High Power (VE6SV).

SINGLE OP ALL BANDS LOW POWER

Sam Ferris, VE5SF, achieved 1st place this year with a score of 702,354. Sylva Katz, VE5ZX, captured 2nd place by scoring 487,872. Pete Pell, VE7CV, captured 3rd place in the winter contest with a score of 258,024. Ed Henderson, VE4YU, took 4th place again this year scoring 246,012, while once again Malcolm Timlick, VE4MG, took 5th place with a score of 237,800.

SINGLE OP ALL BANDS HIGH POWER

John Sluymmer, VE3EJ, captured the 1st place SOABHP, with a score of 1,344,000. Second place went to Joe Adams, VE3BW, with a score of 467,744. Jerry Spring, VE6TL, placed 3rd with a score of 461,280. Jim Brown, K9YC, joined the top scorers in 4th place scoring 452,016. John T Laney, K4BAI, captured 5th place in the category with a score of 317,400. Within the SOABHP category, Jim Brown, K9YC, captured the Russ Coleston, VK4XA Memorial for the highest scoring Single Op Foreign Entrant with a score of 452,016.

SINGLE OP SINGLE BAND

With a score of 124,080, Rick Williams won the overall SOSB crown this year using the 20 metre band. Again this year Mike Smith, VE9AA, took 2nd overall SOSB place with a score of 94,248 with his 20 metre band entry. Third place in the overall SOSB was taken by David Pritchard, W9QL, with 90,714 points on the 10 metre band. On a band-by-band breakdown, Ken Keeler, N6RO, took top band honours on 160 metres with a Single Band High Power score of 2,160. John Posthumus, VA3POS, took the 80 metre band honours using low power with a score of 14,896. Martin Sloodweg, VE7ABR, won 1st place in 40 metres with a score of 17,888 using high power from British Columbia. As noted above, Rick Williams, VE9HF, took 1st place on 20 metres with a high power entry scoring 124,080 and he established a new all-time record for the sub category. John White, VA7JW, took the honours for the 15 metre band with a high power score of 20,724. The winner of the 10 metre SOSB category was David Pritchard, W9QL, with a low power score of 90,714. Alan Goodacre, VE3HX, won the 6 metre band with a low power score of 40 points. In the 2013 contest there were no entrants in the 2 metre Single Op Single Band sub category.

SINGLE OP – QRP

This year, Robert MacKenzie, VA3RKM, achieved 1st place in the SOABQRP category with a score of 85,224, up from 2nd place last year – congratulations Robert. Timothy Watson, KB1HNZ, took 2nd place with a score of 47,878. Dave Stephenson, VE3PYG, took 3rd place with a score of 41,680. Bob Sharp, VA3QV, won 4th place this year with a QRP score of 37,848 ahead of Allen Wootton, VE7BQO, in 5th scoring 36,380.

PLAQUE WINNERS

Single Operator All Bands Low Power

Sponsored by Contest Club Ontario
Sam Ferris, VE5SF
1,202 QSOs – 101 Multipliers
702,354 Points

Single Operator All Bands High Power

Sponsored by Radioworld
John Sluymmer, VE3EJ
2,123 QSOs – 128 Multipliers
1,344,000 Points

Single Operator All Bands – QRP

Sponsored by QRP Canada
Robert MacKenzie, VA3RKM
238 QSOs – 53 Multipliers
85,224 Points

Single Operator Single Band Any Authorized Power

Sponsored by Elkel Products
Rick Williams, VE9HF
1,246 QSOs – 24 Multipliers – 20 Metre Band
124,080 Points

Single Operator All Bands CW

Sponsored by the Maritime Contest Club
Gabor Horvath, VE7JH
1,385 QSOs – 62 Multipliers
368,900 Points

Single Operator All Bands Phone

Sponsored by the Saskatchewan Contest Club
Ed Richardson, VE4VT
1,603 QSOs – 55 Multipliers
442,200 Points

Multi-Operator Single-Transmitter High Power

Sponsored by Alfa Radio
Gord Kosmenko, VE6SV and Max Stagg, VE6RST at VE6SV
1,750 QSOs – 119 Multipliers
1,065,526 Points

Multi-Operator Single-Transmitter Low Power

Tony Allsop, VE3FTA Memorial Sponsored by the Mississauga ARC
Greg Osmond, VA3GKO
930 QSOs – 93 Multipliers
495,132 Points

Multi-Operator Multi-Transmitter Any Authorized Power

Sponsored by Radioworld
VE6RAC
(Operators VE5MX, VE6WQ, VE6WAP, VE6BF, VE6LDX, VE6TR, VE6TCK, VA6MA, VE6JY, VA6DX (w/ xyl Christine and sons Davyn and Brysen at VE6JY)
5,393 QSOs – 125 Multipliers
2,896,500 Points

Single Operator Foreign Entrant

Russ Coleston, VK4XA Memorial Sponsored by
Alan Goodacre, VE3HX
Jim Brown, K9YC
735 QSOs – 86 Multipliers
452,016 Points

SINGLE OP ALL BAND CW

Top honours for the category go to Gabor Horvath, VE7JH, a new record high score of 368,900. Second place is awarded to Tom Haavisto, VE3CX, with a score 289,000. Third place was taken by William Hendrick, N0AC, with a score of 237,792. Once again this year, 4th place goes to Bud Mortenson, VA7ST, with a score of 173,856. Fifth place goes to Bob Patten, N4BP, with a score of 168,168.

SINGLE OP ALL BAND PHONE

Once again for the third time Ed Richardson, VE4VT, claimed 1st place with a score of 442,200. Again this year 2nd place goes to Alan Swanick, VA6UK, with a score of 213,390. Alexander Sherman, W6AFA, took 3rd place with a score of 139,542. Fourth place goes to Manuel Migueis, VE3TU, with a score of 131,124. Fifth place is awarded to Don Farrar, VA3ZV, who registered a score of 96,984.

MULTI-OPERATOR SINGLE-TRANSMITTER HIGH POWER

Gord Kosmenko, VE6SV and Max Stagg, VE6RST, won the Multi-Single High Power category with a score of 1,065,526 from the VE6SV station. This year Allen Singer, N2KW, took 2nd place with a score of 454,608. Third place was taken by Dave Tucker, KA6BIM, with a score of 449,280.

MULTI-OPERATOR SINGLE-TRANSMITTER LOW POWER

This year Greg Osmond, VA3GKO, took top honours and the Tony Allsop, VE3FTA Memorial in the Multi-Single Low Power category with a score of 495,132, up from 2nd place last year – congratulation to Greg. Cary Rubinfeld, VE4EA and Robert Kaufman, VE4GV, using the VE4RAC call sign, took 2nd place with a score of 483,060. Third place honours go to operators at the Mississagua Amateur Radio Club VE3MIS (VE3WG, VE3CWU, VE3TWG, VA3JK and VE3IMG) with a score of 431,848.

MULTI-OPERATOR MULTI-TRANSMITTER

Once again this year, operators at VE6JY using the VE6RAC callsign (VE5MX, VE6WQ, VE6WAP, VE6BF, VE6LDX, VE6TR, VE6TCK, VA6MA, VE6JY, VA6DX [w/ xyl Christine and sons Davyn 12 and Brysen 10]) claimed top honours in the MM category, with a score of 2,896,500. Operators VA2RC, VA2MCJ, VE2EBK, VE2SG and VE2GEJ, using the VA2RAC call sign, captured 2nd place in the category with a score of 950,208. This year 3rd place was captured by the operators of VE7RAC (VA7NF, VA7XB, VE7CYY, VE7FO, VE7GM, VE7IO, VE7KC, VE7NAE and VE7TI), with a score of 657,640.

WRAP UP

Your contest managers sincerely appreciate the increased use of Cabrillo-based log entries. Cabrillo files significantly reduce the workload associated with producing the contest results. Current versions of popular contest programs – such as CT, NA, Super Duper and TR – produce Cabrillo files that can be readily handled by new scoring software developed by VE5CPU.

As in the past we will continue to accept paper logs and other electronic logging formats so it is easy for everyone to send in an entry.

CANADA WINTER CONTEST RECORDS AS OF DECEMBER 31, 2013

Call	Category	QSOs	Mult	Score	Year
VVE6JY (op VE5MX)	SO-AB-HP	1676	129	1,344,180	2000
VX5SF (op VE5SF)	SOABLP	1510	109	1,002,800	2001
VE3JC	SO-AB-QRP	399	81	271,674	2001
VE3YOC	SO-SB-144MHz	82	2	1,464	1995
VY2SS	SO-SB-50 MHz	382	10	10,720	2001
ZF2NT	SO-SB-28 MHz	1127	23	100,832	1998
VE3KZ	SO-SB-21 MHz	873	20	75,040	1997
VE9HF	SO-SB-14 MHz	1246	24	124,080	2014
VA3MO	SO-SB-7 MHz	525	22	72,644	2001
VE3BY	SO-SB-3.5 MHz	537	22	104,016	1997
VE3MGY	SO-SB-1.8 MHz	382	17	25,296	2012
VE7JH	SO-AB-CW	1385	62	368,900	2014
VE4VT	SO-AB-PH	1498	60	479,880	2011
VX6JY	MS*	2092	132	1,476,024	2001
VE6SV	MO-ST-HP	1750	119	1,065,526	2014
VA3GKO	MO-ST-LP	930	93	495,132	2014
VE6RAC	MM	5495	133	3,316,488	2011

* Category superseded in Winter 2003

MULTI-OPERATOR DETAILS:

9A283XV: 9A283XV

AA3B: AA3B

AA4CF: AA4CF

AA4DD: AA4DD

AD1C: AD1C

AI6II: AI6II

BH8BJO: BH8BJO

DL1EAL: DL1EAL

DL3NSM: DL3NSM

DL8UAT: DL8UAT

EA3NT: EA3NT

EV1R: EV1R

G3ORY: G3ORY

G4AYU: G4AYU

HA5AQ: HA5AQ

HA5OV: HA5OV

HA5PP: HA5PP

IK1JJM: IK1JJM

IK2CFD: IK2CFD

IZ3GNG: IZ3GNG

JK3GAD: M0CFW, M5Z,

JK3GAD

JO7KMB: JO7KMB

K0JPL: K0JPL

K0LDS: K0LDS

K0PY: K0PY

K0TQ: K0TQ

K2CYE: K2CYE

K2SX: K2SX

K4MM: K4MM

K4ZGB: K4ZGB

K6DDJ: K6DDJ

K6MMM: KE1B

K8EAW: K8EAW

K9JWI: K9JWI

KA6BIM: KA6BIM + Cluster

KD0FW: KD0FW

KD6WKY: KD6WKY

KF5HIQ: KF5HIQ

KF7DX-7: KF7DX, KD7GNH

KG4W: KG4W

KM5PS: KM5PS

KM7N: KM7N

KS0T: KS0T

LZ2PT: LZ2PT

N0BK: N0BK

N2BJ: N2BJ

N2KW: N2KW

N2YBB: N2YBB

N3QE: N3QE

ND2T: ND2T

NF7T: NF7T

OH3EX: OH3EX

PB7Z: PB7Z

PA5WT: PA5WT

PI4DX: PD1DX

PY4RGS: PY4RGS

PY5FO: PY5FO

RW0CN: W0CN

S58Q: S58Q

S59T: S59T

SM2LIY: SM2LIY

SM5X: SM5GMZ

SP9KJU: SP9MDY, Hubert

SQ6LJV: SQ6LJV

UA5C: UA5C

US7WW: US7WW

UT4LW: UT4LW

VA2EN: VE2NGH, VA2UTC

VA2IC: VA2IC

VA3RAC: (VE3DC Contest Group)

VA3TUR, VE3BK, VE3CXB,

VE3DCU, VE3EEZ, VE3QEE,

VE3RIA

VA2RAC: VA2RC, VA2MCJ,

VE2EBK, VE2SG, VE2GEJ

VA3DX: VA3DX

VA3GKO: VA3GKO

VE7AX: VE7AX

VA7BEC: VA7BEC, VA7KO

VE1LD: VE1FA, VA1YLm VE1QY,

VE1RSM, VE1WT VE1DT: VE1DT

VE2FK: VE2FK

VE2NMB: VE2NMB

VE3CWM: VA3DGN, VA3IK,

VE3BBM, VE3CBR, VE3FFK,

VE3KL, VE3TLY, VE3XRA,

VE3YTZ, VA3VXN

VE3FU: VE3FU

VE3GFN: VE3GFN, VE3TW

VE3HEU: VE3HEU

VE3JAQ: VE3JAQ

VE3MIS: VE3WG, VE3CWU,

VE3TWG, VA3JK, VE3IMG

VE3MM: VE3MM

VE3SWA: VA3CBE, VA3MP,

VE3USP, VE3OAV, VE3MF

VE3TA: VE3TA

VE3XAT: VE3XAT

VE4RAC: VE4EA, VE4GV

VE5EEE: VE5EEE, VE5DMN

VE6A0: VE6KC, VE6CCL, VE3RTL,

VE6STP, VE6DED

VE6FN: VE6FN

VE6RAC: VE5MX, VE6WQ,

VE6WAP, VE6BF, VE6LDX, VE6TR,

VE6TCK, VA6MA, VE6JY, VA6DX

(w/ xyl Christine and sons Davyn 12

and Brysen 10) @ VE6JY

VE6RFM: VE6RFM, VE6ND

VE6KD: VA6AWS, VE6BHO,

VE6EFR, VE6KD, VE6STE

VE6SV: VE6SV, VE6RST

VE7LFE: VE7LFE, VA7ZJR, VE7QJ,

VE7EAR, VE7FY

VE7NA: VA7DEO, VE7FSM, VE7LSE

& VE7BGP

VE7NSR: VA7DXC, VA7JMO,

VA7KRZ, VA7SMF, VE7GPK

VE7OGO: VE7FI, VE7BST, VE7QAC,

VE7MET, VE7XY

VE7RAC: VA7NF, VA7XB, VE7CYY,

VE7FO, VE7GM, VE7IO, VE7KC,

VE7NAE, VE7TI

VE7SAR: VA7XB, VA7YEE,

VE7KGD, VE7NAE

VE7XDT: VE7XDT

VE9CRM: VE1MAM, VE9BRY,

VE1PPL, VE9PMM, VE9GLP,

VE9GJL, VE9BEL, VE9RMO,

VE9SDY, VE2PQC

VE9ML: VE9ML

VE9RAC: VE9AV, VE9CD

VO1RAC: VO1KVT, VO1DJT,

VO1JNS

W1UJ: WUJ

W2RZS: WB2NVR

W4ML: W4MYA + PACKET

W4RM: W4RM

W5ASP: W5ASP

W6KC: W6KC

WA9AQN: WA9AQN

WB0TEV: WB0TEV

WL7E: WL7E

2013 CANADA WINTER – LINE LISTING BY CATEGORY

SINGLE OPERATOR ALL BAND LOW POWER

Call	CDN	RAC	DX	MUL	QSO	Score
VE5SF**	481	39	682	101	1202	702354
VE5ZX	348	32	481	96	861	487872
VE7CV*	237	37	99	78	373	258024
VE4YU*	199	42	162	78	403	246012
VE4MG	300	22	330	58	652	237800
VE5UO	250	15	439	63	704	231714
VY2RAC*	260	25	225	60	510	213000
VE9OA*	242	25	393	57	660	211242
K5DHY*	194	41	68	69	303	199824
VE2JCW*	181	23	352	67	556	199258
VE2AWR	165	28	326	67	519	191754
VE3VSM*	191	25	273	64	489	189184
VE4GV	247	11	342	49	600	165326
VO1GO*	130	26	182	61	338	133224
VE7BC	181	17	147	51	345	124644
N7WY*	151	28	95	55	274	124300
NW2K*	127	22	201	57	350	120384
K1PU*	127	34	0	58	161	113100
VE2ZT	144	27	81	52	252	111384
VE7KW	125	25	142	51	292	103734
VE1ZA*	117	21	257	49	395	103096
VE3CES	109	20	103	49	232	83104
WA2JQK	85	23	40	53	148	73670
VE3SB	84	23	80	49	187	71540
WS8K*	89	20	65	48	174	68160
AA0AW	98	17	101	40	216	60880
VA5LF	86	11	163	39	260	54834
VE5AAD	85	9	110	42	204	52,500
N7VS*	66	16	90	39	172	45240
WA0WWW	73	17	60	38	150	45220
W4EEH*	75	17	48	38	140	45068
9A1AA*	72	9	159	36	240	43848
KB3LIX*	46	22	32	43	100	41452
WR9Y*	57	19	28	41	104	41246
KS4X	60	17	5	43	82	40850
NF8M	61	15	38	37	114	36482
VE3RCN	59	15	34	37	108	35446
VA3RNJ	53	19	13	36	85	33696
W9WLX	51	17	33	35	101	32060
N0UV	53	19	10	34	82	31620
VA2MO	53	14	7	29	74	23896
WA1DRQ	54	13	0	29	67	23200
UA0KBG*	59	10	104	23	173	22954
K8MU	37	12	43	28	92	19488
WA9LEY	54	12	14	24	80	19392
VO1BQ	40	7	103	20	150	14920
K0TNT	39	7	6	24	52	13008
KD0CVO	31	8	0	23	39	10810
VE3EDX	26	10	37	19	73	10146
VE5WD	42	6	11	16	59	8992
VA2SG	23	5	57	20	85	8880
WA1Z	24	8	42	18	74	8712
K4TRH	23	12	0	16	35	7520
EA8AQV*	27	4	21	15	52	5880
N9NA	24	5	0	15	29	5100
VE6SQ*	20	2	29	16	51	4768
K6RM	18	5	0	12	23	3360
OZ6OM*	17	5	0	12	22	3240
NC4RT	16	2	0	14	18	2800
VE7SJW	12	3	2	15	20	2760
VA7GAP	22	1	12	10	35	2640
K6TIG*	17	3	0	11	20	2530
ON6FC*	10	2	51	9	63	2178
DH1PAL*	13	2	7	11	22	2024
G3ZRJ*	11	3	12	9	26	1746
AA1RB	10	4	0	8	14	1440
SQ3MVC*	8	2	19	9	29	1422
NG2D	7	4	0	8	11	1200
SQ9FMU	7	1	40	6	48	1020
JJ5HUD*	2	3	2	5	7	420
W1HFG	6	1	0	4	7	320
JA2GHP	3	2	3	4	8	304
UA1CUR*	6	0	19	3	25	294

SINGLE OPERATOR ALL BANDS HIGH POWER

Call	CDN	RAC	DX	MUL	QSO	Score
VE3EJ**	676	47	1400	128	2123	1344000
VE3BW	332	33	498	94	863	467744
VE6TL*	368	22	823	80	1213	461280
K9YC*	399	33	303	86	735	452016
K4BAI*	276	33	406	75	715	317400
VE3FGU	199	35	303	78	537	257088
VE3KI	179	27	408	65	614	204490
VA7DX*	176	18	456	63	650	191016
VO1UL*	130	32	7	50	169	97700
KF7PBM*	133	22	169	44	324	92752
K4XU	98	21	94	48	213	76224
W1PR	118	15	46	48	179	75456
K1JB*	100	18	86	48	204	73536
VE3SSR	83	19	102	40	204	56560
W9IU*	76	11	85	46	172	52900
K7IA*	78	13	109	35	200	44030
K5WP	59	17	0	38	76	35340
G4ERW*	71	5	72	27	148	25758
N3KN	40	10	0	31	50	18600
WA0MHJ*	53	10	59	20	122	16960
VY2LI*	37	9	35	23	81	14260
N7RVD	34	12	0	23	46	13340
DL8UI*	46	7	18	20	71	12720
VE2GDA/W5	50	8	74	12	132	9696
KB7N	31	8	23	16	62	8256
R3BT*	12	7	43	15	62	5190
SE4E*	13	3	95	11	111	4180
JF1OPL*	14	8	5	13	27	4030
AB1QP	13	5	9	14	27	3472
KE2VB	12	1	0	9	13	1260
VO1NA	6	0	7	4	13	296

SINGLE OPERATOR QRP

Call	CDN	RAC	DX	MUL	QSO	Score
VA3RKM**	110	14	114	53	238	85224
KB1HNZ*	76	20	67	37	163	47878
VE3PYG	71	14	26	40	111	41680
VA3QV	66	16	8	38	90	37848
VE7BQO*	73	11	60	34	144	36380
VE3FCT	69	16	2	35	87	35490
VE3DTI	57	10	60	36	127	32040
VE4VHU*	85	10	49	27	144	30996
KE0G*	71	11	69	23	151	24564
W4UT*	43	9	18	25	70	16150
VE3DQN	28	10	35	26	73	14300
VE3VN	47	5	72	19	124	13566
WB0IWG	57	9	23	14	89	11144
ON6AB*	25	6	22	15	53	6210
N9BT*	16	8	15	15	39	5250
VE3XT/VE6*	26	4	19	12	49	4536
VE7NI	26	3	47	10	76	4140
VE3GNU	17	4	1	14	22	3528
KC4LMD	27	4	18	9	49	3474
WU0L*	17	4	10	12	31	3240
K6FA/QRP*	16	4	20	11	40	3080
VE3TPZ/W4	15	5	1	12	21	3024
K3HX*	14	9	4	12	27	2856
EA4EMC*	9	6	12	11	27	2574
KB1ZHU	13	2	3	9	18	1584
K1DM	17	2	5	7	24	1540
VE3CBK	7	5	8	8	20	1488
VE7PKE	14	2	2	8	18	1472
G4FDC*	9	1	19	29	8	1184
VA7IJ	10	2	8	6	20	936
IK3XTY*	4	4	16	6	24	912
VE3KJQ	6	3	4	6	13	768
JQ1NGT*	2	3	5	4	10	360
US5VX*	5	1	21	3	27	336
RW3AI*	3	0	32	3	35	282
EA7AAW	3	1	17	3	21	252
PE2K*	3	1	35	2	39	240
DL2TM*	6	0	21	2	27	204
YO4AAC*	2	0	41	2	43	204
JA2MWV	3	1	0	2	4	100
EU3NA*	1	0	6	1	7	22
F5UKL*	0	0	10	1	10	20
RD3ARU	1	0	1	1	2	12
DM1LM	0	0	5	1	5	10

If you are submitting a paper log, we would appreciate, if possible, receiving summary sheets prepared in accordance with the format set out in the official rules and which provide a breakdown of VE, RAC, DX contact and a multiplier total. This will make compiling and checking of logs an easier and quicker process.

Thanks and congratulations to all for participating in the 2013 running of the Canada Winter Contest and good luck in 2014. Operator comments are available on the RAC website.

73, Sam, VE5SF and Bart, VE5CPU



SINGLE OPERATOR ALL BANDS CW ONLY

Call	CDN	RAC	DX	MUL	QSO	Score	SM5IMO*	42	4	96	13	142	8996
VE7JH**	339	26	1020	62	1385	368900	HA5W*	29	3	194	12	226	8856
VE3CX*	329	22	1025	50	1376	289000	N3NZ	35	9	24	15	68	8670
N0AC*	300	21	767	48	1088	237792	9A286A*	39	5	81	13	125	8476
VA7ST	210	18	581	48	809	173856	VE3IZS	22	11	28	17	61	8432
N4BP*	246	19	491	44	756	168168	HA5OO	31	4	142	12	177	8088
AA7V*	205	19	317	48	541	147072	K0VBU	28	5	21	19	54	8018
VE3UTT	162	12	508	47	682	135172	NC2Y	27	7	0	19	34	7790
VA3AR	173	13	474	44	660	129272	DD2CW	27	4	51	17	82	7684
VE3DZ	182	15	436	43	633	128656	G3LIK*	21	4	172	12	197	7608
W9RE*	169	20	286	47	475	125114	UA1ANA*	28	6	90	13	124	7540
VE7JKZ	159	18	336	41	513	107502	SM5CSS	33	6	89	12	128	7536
N8BJQ*	153	18	270	42	441	102060	N1NN	33	3	73	14	109	7504
N8V	131	17	265	44	413	95920	G8DX	33	3	68	14	104	7364
K4LTA	143	19	230	39	392	88530	K8BTU	34	4	20	16	58	7360
K6RB*	146	8	246	39	400	82368	KB8X	27	8	0	17	35	7310
VE3XL	131	11	347	37	489	82288	IK2AOO	35	3	117	11	155	7084
VY1RAC*	134	9	508	30	651	76080	W6AWW	29	6	0	17	35	6970
VE5UF*	100	12	118	49	230	72324	TF3DC*	34	6	36	13	76	6916
WB8JUI	118	13	194	39	325	71292	TF3Y	30	6	0	16	36	6720
N5XE*	142	17	123	35	282	70210	W2LE	27	6	43	14	76	6664
VE3KAO	115	13	185	39	313	69420	K0TC	35	5	12	14	52	6636
VE5GC	128	9	399	30	536	67740	SI5Y	29	4	87	12	120	6528
W6AEA	131	9	297	31	437	64604	K7JQ	34	6	31	12	71	6264
N5AW	109	13	150	39	272	64350	VE3CV	26	6	44	13	76	6084
K9MA	100	13	206	36	319	60192	UA2FL*	24	3	101	12	128	6024
N4TB	115	16	131	34	262	58888	LA2HFA*	16	4	98	13	118	5668
W3DQN/5	88	21	105	37	214	55870	W9VQ	21	6	1	17	28	5644
W4YE	104	15	125	35	244	55650	YL2CV*	29	2	117	10	148	5640
W1FJ*	85	16	125	35	226	49700	EA8OM	20	3	88	12	111	5232
VA3EC	76	12	188	35	276	48160	SM5ALJ	18	3	106	11	127	4972
WC7Q	94	11	218	29	323	46284	N2UU	17	5	18	14	40	4284
K8MP	80	11	234	31	325	46128	IZ2GRG	25	1	78	10	104	4260
W0QQG	100	15	104	30	219	45240	HB9BXE*	29	2	42	10	73	4140
NS0R	93	12	140	31	245	44950	UT3EK*	13	2	143	9	158	4104
N4DW	78	12	110	34	200	42160	LZ1RF*	26	1	71	9	98	3798
KI0I	73	16	87	34	176	41616	K1SXD	21	4	7	11	32	3344
KM6Z	94	14	148	27	256	40932	W6AAN	17	4	14	12	35	3336
W9LHG	104	11	121	27	236	40554	OM2EE*	12	1	83	10	96	3060
W1END	70	15	119	30	204	37140	AC2IK	15	5	25	9	45	2700
VE7FE	70	14	76	30	160	33960	AE1T	12	5	23	10	40	2660
KN4Y	87	11	17	30	115	33720	G3ZGC	14	4	0	12	18	2640
KD2MX*	69	13	84	30	166	33540	F8NUH	24	3	15	8	42	2640
NP2X*	68	7	228	24	303	30624	HA5UA	13	2	78	8	93	2608
K1BV	63	6	185	27	254	30240	DJ6TK	14	3	44	9	61	2592
K4UK	66	14	11	31	91	29822	HA2OS	15	0	60	9	75	2430
NW0M	60	11	63	31	134	29326	N6XI	16	4	0	10	20	2400
VE3IAE	77	5	228	21	310	27846	OK1KZ*	11	2	59	8	72	2144
VE2EZD*	66	11	112	23	189	25392	SP9MZH*	12	3	29	9	44	2142
W2RR	61	5	90	26	156	23140	SP8CGU	14	1	47	8	62	2032
NM5M	50	10	115	23	175	21390	DL7VAF	14	3	0	10	17	2000
N3KR*	51	10	96	23	157	20746	OK4DZ	12	4	24	8	40	1984
VA2EU	38	10	91	27	139	20574	OK8DD	11	3	19	9	33	1872
DL8QS*	56	10	33	24	99	19824	EC4TA*	17	1	22	8	40	1872
K5ME	52	10	0	26	62	18720	DL4VQ	11	2	27	8	40	1632
WA6URY	39	11	67	25	117	18600	HA2MN	10	0	65	7	75	1610
W6CWM	59	11	29	21	99	18228	AC8JW	8	3	18	9	29	1584
W7GB	52	10	1	25	63	18050	OM3ZWA	10	1	37	8	48	1552
VA2WA	37	5	155	23	197	17940	G4DBW	12	1	35	7	48	1470
K2ZR/4	53	6	112	19	171	16606	OK1AOU	11	2	28	7	41	1442
N1KWF	47	1	111	22	159	15664	SN6A	12	2	9	8	23	1424
VE3FJ	56	6	119	17	181	15606	UT5VX	8	1	57	6	66	1284
W5YH	37	13	41	21	91	14952	DL8MAS	10	0	53	6	63	1236
NT6X	46	7	88	19	141	14744	DJ3CS	8	1	48	6	57	1176
DL7BY	46	5	149	17	200	14586	YO8BFC*	8	1	56	5	65	1060
VO1QU	60	8	168	13	236	14248	HA5CE	4	2	53	5	59	930
VE3FH	39	10	78	19	127	14174	PA2PCH*	8	1	65	4	74	920
NS9I	36	8	66	21	110	13692	EA8/PA3LEO	8	3	6	6	17	912
N4VV	50	6	87	16	143	12704	YU1FG*	5	1	54	5	60	890
N2RI	38	6	50	21	94	12600	RN2FQ	4	2	33	6	39	876
WB8RFB	30	8	30	24	68	12480	MM0AMW*	10	2	15	5	27	850
EA8AVK*	44	7	76	17	127	12444	M0BUY	5	1	49	5	55	840
NE8J	39	7	78	18	124	12348	ZL3PAH*	7	3	0	6	10	780
F8ATS*	39	7	85	17	131	11900	RA3NC	10	1	34	4	45	752
W2SA	41	7	36	19	84	11818	WA3AAN	7	2	7	6	16	744
VE3LC	37	6	32	21	75	11634	G3RSD	9	0	47	4	56	736
VA3FN	39	5	36	20	80	11240	HA3OD	12	1	21	4	34	728
K1GU	35	3	128	16	166	10656	JK1LUY*	5	3	1	5	9	560
N2CU	39	7	57	16	103	10304	YO2GL	8	0	24	4	32	512
K6DGW	32	9	36	18	77	10296	OK2SG	9	0	3	5	12	480
WB5EIN	33	9	28	18	70	10188	UA6HFI	4	1	30	4	35	480
W6SX	37	6	68	16	111	10016	OZ1DGQ*	11	0	24	3	35	474
KG4CUY	34	5	21	20	60	9640	PY1KR*	4	2	3	5	9	430
IT9RZU*	22	3	199	14	224	9492	M0IPU	7	0	14	4	21	392
K6KQV	34	6	28	18	68	9288	OK2KFK	5	0	20	4	25	360
							JE2CPI	4	2	5	4	11	360

PA3GCU	7	0	25	3	32	360	KC4EZN	29	11	0	21	40	10710
YO3GNF	6	0	6	4	12	288	K7XE	42	8	0	18	50	10440
K9JM	3	2	0	4	5	280	VE1TWM	29	12	13	18	54	10008
OZ8SW	5	1	11	3	17	276	KI7DG	28	8	2	22	38	9768
JA3JM	4	2	5	3	11	270	NB4F	33	8	0	19	41	9310
RO5O	4	0	24	3	28	264	F6DRP*	38	6	19	17	63	9146
W6NF	5	0	0	5	5	250	G3VAO*	31	8	11	18	50	8856
ON3ND*	1	1	47	2	49	248	KB1VUN	36	11	0	15	47	8700
EU6AA*	2	1	19	3	22	234	N5ZMP	30	9	1	18	40	8676
OK2EA	2	1	10	3	13	180	VE6AMI	28	8	7	17	43	7718
OK1FCA	2	0	33	2	35	172	VE7MYA	38	3	14	15	55	7020
UA4CNJ	2	0	67	1	69	154	OH6ECM*	28	8	25	14	61	6860
LZ1MDU	3	0	8	3	11	138	KI4VCT	16	11	0	18	27	6840
DL4XU	2	0	24	2	26	136	EA5HRV*	25	8	40	13	73	6370
SM5BJT	2	0	17	2	19	108	VE6QO	26	4	14	16	44	5888
JN3TSY	3	0	6	2	9	84	KC8NLP	28	7	7	13	42	5642
PC3H	1	0	28	1	29	66	VE2HAY	39	4	16	11	59	5522
SP3BES	1	0	25	1	26	60	VA3EEB	24	8	8	13	40	5408
RA4Y	2	0	4	2	6	56	VA4CAM	34	3	8	13	45	5408
OH6QR*	1	2	0	1	3	50	W4FRA	19	7	0	16	26	5280
IK2AUK	0	0	23	1	23	46	KL2ZZ	34	8	4	10	46	5080
YL2QN	2	0	13	1	15	46	K5ZZR	19	7	0	15	26	4950
RV9CQ*	1	0	16	1	17	42	AD7ND	23	4	6	15	33	4830
OK2GU	1	0	11	1	12	32	DL/SP3LPG*	17	6	14	14	37	4452
YO7CVL	0	0	14	1	14	28	VE3MEW	14	8	6	14	28	4368
DL5SVB	0	0	11	1	11	22	VE7CYU	31	2	4	12	37	4296
LZ1FJ	1	0	3	1	4	16	W1CRK	23	5	0	13	28	4290
YO3JV	0	0	8	1	8	16	WA8FRE	26	5	15	11	46	4290
R2LAC	0	0	5	1	5	10	HB9ELV*	26	4	13	10	43	3660
							VE2FAB	14	7	8	12	29	3552
							KE5ISO	14	7	6	12	27	3504

SINGLE OPERATOR ALL BANDS PHONE ONLY

Call	CDN	RAC	DX	MUL	QSO	Score
VE4VT**	539	29	1035	55	1603	442200
VA6UK*	316	19	601	45	936	213390
W6AFA*	273	20	224	39	517	139542
VE3TU*	236	18	201	42	455	131124
VA3ZV	199	11	242	36	452	96984
VE8GER*	214	10	271	30	495	86460
N0XT*	174	18	60	35	252	77700
VE3NB	107	21	37	43	165	67252
VA6AK	121	21	40	39	182	66690
VE6CMV	147	8	202	32	357	65088
VE4SBS	140	10	327	26	477	58604
VE7GTC*	121	15	54	35	190	56630
VE6SPS	149	6	158	29	313	55854
VA3TIC	107	15	60	37	182	55130
VE3IQZ	93	14	27	36	134	45504
VE5DLM*	99	11	60	33	170	43890
VE3XRC	113	14	23	30	150	43680
VE7GYR	82	10	111	35	203	43470
VA3XH	83	18	33	34	134	42704
VE2CJR*	111	15	165	24	291	41760
VE4DRK	96	15	32	31	143	41044
VE7FCO	85	13	29	31	127	36208
VE6GEL	80	7	43	34	130	34884
W7WW*	143	7	70	20	220	34200
KF0F	86	17	5	27	108	32670
VE1PEW*	94	10	106	24	210	32448
WB3BSA*	66	15	19	32	100	31936
VE8DAV	109	11	97	21	217	31584
VE3KKQ	54	17	12	34	83	30736
VE2PDT	61	17	23	30	101	29880
WB0LJK	67	15	0	29	82	28130
NJ9U*	67	15	13	28	95	27888
YP9L*	36	9	597	15	642	26010
W1RJ*	64	15	21	26	100	25532
NW5Q*	73	12	13	24	98	23904
N1ZN	63	13	11	25	87	22800
VE7UT	76	5	21	25	102	22550
N7MWZ	81	4	82	21	167	22134
NX8G/5*	56	15	17	23	88	20562
K5HM	54	12	1	26	67	20332
VE3YX	46	11	11	25	68	17550
VY1MAB*	75	2	92	17	169	16558
PA1NHZ*	56	6	57	20	119	15880
AB2TC*	45	12	0	23	57	15870
AD4RE*	53	7	10	22	70	15180
N8BV	38	12	12	23	62	14812
VE3LJQ	40	13	17	21	70	14574
K9JIG	39	12	0	23	51	14490
VA7GRR	44	8	48	19	100	13224
VA3GD	28	11	18	24	57	12864
VE7TJF	46	8	11	20	65	12840
CN8MC*	37	7	95	18	139	12600
VE3FTM	30	13	3	22	46	12452
VE1SQ	42	10	17	19	69	12426

VA2MDY	13	8	12	11	33	3454
VE9LMN*	15	5	0	13	20	3250
VE2POU	17	6	4	10	27	2980
NG4L	15	4	0	12	19	2760
VE2AXO	20	3	9	9	32	2502
N0RZT	13	6	0	10	19	2500
VA3ROC	15	5	13	9	33	2484
DL9HB	14	3	10	11	27	2420
NY7N	19	2	5	10	26	2400
W1MSN	18	4	0	9	22	2340
PG1R	10	4	8	11	22	2156
KC2QJB	9	6	0	10	15	2100
VE2SVF	13	4	2	9	19	1926
VE3CKG	16	5	1	7	22	1834
JA7BEW*	12	3	2	9	17	1656
VE7RIJ	17	0	30	7	47	1610
WB0YYE	10	3	0	10	13	1600
PY1PDF*	11	4	0	8	15	1520
VE7CMK	10	4	31	6	45	1452
DJ4DN	12	2	0	9	14	1440
K6PGH	12	2	0	9	14	1440
OZ6GH*	8	3	2	9	13	1296
R7NP*	5	4	0	9	9	1170
CT1DZY*	10	1	0	9	11	1080
PA0JHS	7	2	4	9	13	1062
OZ1HHH	6	3	1	7	10	854
UX7UU*	8	2	18	5	28	780
KC8HQS	5	3	0	7	8	770
RZ3Z	4	3	13	6	20	756
OE1WWL*	5	1	25	6	31	720
K2JF	6	2	5	6	13	660
KD4YDD	7	2	0	6	9	660
VE3AD	4	4	1	5	9	610
VA3KHH	7	1	3	6	11	576
K4BLL	7	1	3	5	11	480
EB1IC	6	1	0	5	7	400
W4NFT	4	3	0	4	7	400
KD2DOE	9	0	2	4	11	376
DL5ALW	5	1	1	5	7	360
OK2BEN*	1	3	4	4	8	312
W0NFS	5	1	0	4	6	280
N8DRG	3	0	0	3	3	90
AD0AE	2	0	4	2	6	56
T7/IW3GYG/M*	0	1	10	1	11	40
I3YYY*	0	1	7	1	8	34
OM7JM*	0	1	5	1	6	30
SE3X*	0	1	4	1	5	28
HB9RJG	1	0	5	1	6	20

MULTI OPERATOR SINGLE TRANSMITTER LOW POWER

Call	CDN	RAC	DX	MUL	QSO	Score
VA3GKO**	334	44	552	93	930	495132
VE4RAC*	384	30	690	83	1104	483060
VE3MIS	274	50	477	92	801	431848
VE3SWA	314	42	482	86	838	425184

VA7BEC*	302	37	595	83	934	410850	PI4DX	51	3	95	12	149	9120		
VE9ML*	233	31	114	74	378	235172	OH3EX*	25	10	24	18	59	8964		
VE3GFN	174	23	321	65	518	184730	AA4CF	21	11	18	18	50	8388		
VE9CRM	141	25	76	53	242	109286	VE3FU	27	5	52	17	84	8058		
KG4W*	166	19	173	43	358	102598	UA5C	42	2	71	11	115	6622		
VE7SAR	146	17	347	38	510	94772	K6DDJ	29	2	37	15	68	6060		
AD1C*	131	26	0	49	157	89670	EA3NT*	0	17	1	17	18	5814		
K4MM	95	11	214	33	320	52734	IZ3GNG*	18	5	9	18	32	5364		
K0LDS	86	18	3	42	107	51492	HA5PP*	18	6	11	15	35	4830		
VE9RAC	82	15	84	35	181	45080	K2CYE	19	6	14	13	39	4394		
VE7NA	58	16	48	40	122	39840	JO7KMB*	12	4	6	12	22	2544		
VE5EEE*	64	19	18	35	101	36960	VE2NMB	17	4	22	7	43	2058		
K9JWI*	84	14	113	26	211	34996	K2SX	13	3	19	8	35	1824		
NF7T*	74	14	15	33	103	34650	PP5JAK*	22	2	54	4	78	1472		
VE3JAQ	52	6	84	32	142	25856	VE6FN	8	3	6	9	17	1368		
VA3ATT	57	10	130	22	197	22660	S58Q*	11	1	53	5	65	1180		
HA5OV*	62	8	104	21	174	20748	S59T	8	1	31	6	40	972		
N2ESP	51	11	0	25	62	18250	KM7N	13	1	0	6	14	900		
VE3XAT	31	14	62	24	107	17136	PY4RGS	5	2	18	6	25	756		
K0TQ	42	9	42	23	93	15732	DL8UAT*	3	3	5	6	11	600		
KF7DX-7*	36	10	44	23	90	14904	LZ2PT*	11	1	13	3	25	468		
PY5FO*	35	8	42	18	85	10692	K8EAW*	4	3	0	4	7	400		
KD6WKY*	19	8	5	22	32	7920									
VA2IC*	24	9	11	13	44	5746	MULTI-OPERATOR MULTI TRANSMITTER								
SQ6LJV*	20	6	0	16	26	5120	Call	CDN	RAC	DX	MUL	QSO	Score		
K0PY	19	6	30	13	55	4810	VE6RAC**	1429	53	3911	125	5393	2896500		
VE7XDT	19	6	30	13	55	4810	VA2RAC*	629	39	1313	98	1981	950208		
K4ZGB	24	6	14	12	44	4656	VE7RAC*	507	25	1225	82	1757	657640		
KF5HIQ*	12	6	10	10	28	2600	VE6AO	399	34	938	91	1371	595686		
VE3HEU	22	1	35	7	58	2170	VA3RAC*	384	24	823	69	1231	411654		
DL1EAL*	14	1	37	9	52	2106	VE6KD	538	26	856	53	1420	403436		
IK2CFD*	13	2	14	9	29	1782	VE3CWM	205	21	357	54	583	171936		
RZ3TZZ*	10	3	31	8	44	1776	VE7OGO	223	14	351	35	588	112420		
PB7Z*	11	1	44	7	56	1526	VE7LFE	156	7	253	28	416	61768		
DL3NSM	1	6	0	7	7	910	VE1DT*	133	11	200	24	344	46800		
US7WW*	9	0	28	5	37	730	W4ML*	62	19	0	35	81	35000		
SP9KJU	8	1	24	4	33	592	W1UJ*	53	6	53	19	112	14364		
OH2LNH*	3	0	36	2	39	204	JK3GAD*	3	1	10	3	14	210		
HA5AQ	3	1	8	3	12	198									
G4AYU*	3	0	4	3	7	114	SINGLE OPERATOR SINGLE BAND								
UT4LW	1	0	17	1	18	44	CALL	CDN	RAC	DX	MUL	QSO	Score	BND	PWR
BH8BJO*	1	0	13	1	14	36	N6RO*	9	0	225	4	234	2160	160M	HP

MULTI-OPERATOR SINGLE TRANSMITTER HIGH POWER

Call	CDN	RAC	DX	MUL	QSO	Score	Call	CDN	RAC	DX	MUL	QSO	Score	BND	PWR
VE6SV**	558	55	1137	119	1750	1065526	VA7MM	12	1	21	4	34	728	160M	LP
N2KW*	331	59	51	99	441	454608	K7FA*	13	1	11	4	25	688	160M	HP
KA6BIM*	326	44	270	96	640	449280	VE2PIJ*	1	0	0	1	1	10	160M	LP
K6MMM	308	32	412	75	752	340800	UT3WM*	0	0	1	1	1	2	160M	LP
VE1LD*	361	27	354	70	742	340060	VA3POS*	82	8	42	14	132	14896	80M	LP
WB0TEV*	272	47	85	88	404	337040	WA4JQS*	55	5	30	10	90	7100	80M	LP
K0JPL*	193	37	187	74	417	225256	VE9RLW*	36	6	10	9	52	4500	80M	LP
AA3B*	240	24	813	49	1077	220794	W8IQ*	19	5	20	9	44	2970	80M	HP
VA3DX*	182	23	264	72	469	202176	SP5GH*	18	0	10	4	28	800	80M	LP
VO1RAC*	292	10	493	31	795	127286	SP5GDY	5	0	5	2	10	120	80M	LP
VE6RFM	126	20	375	50	521	120500	RV6LN*	2	0	0	2	2	40	80M	HP
ND2T	138	24	103	53	265	109498	OK/LZ3SF*	3	0	0	1	3	30	80M	LP
G3ORY*	149	20	107	48	276	100992	VE7ABR*	97	4	34	16	135	17888	40M	HP
VE3TA	83	22	95	59	200	86140	K9WX*	75	10	79	16	164	17728	40M	LP
KM5PS*	116	16	231	41	363	79622	VE3PYJ*	19	7	6	10	32	3420	40M	LP
N3QE	99	22	36	52	157	78104	IV3ZXQ*	30	4	22	8	56	3392	40M	HP
VA2EN*	106	11	191	45	308	74790	OK8ACS*	21	0	38	5	59	1430	40M	HP
NK3Y	109	25	19	44	153	71632	LY7M*	7	3	30	5	40	950	40M	HP
N0BK	83	18	0	56	101	66640	WN4AFP*	13	1	15	5	29	900	40M	LP
RW0CN*	97	16	199	37	312	62456	UA3MIF*	10	1	30	4	41	720	40M	LP
SM2LIY*	79	20	22	50	121	61700	DG1EA*	9	3	11	4	23	688	40M	HP
VE3MM	100	13	193	35	306	57610	SE2T*	3	2	4	3	9	234	40M	HP*
W6KC	60	20	7	54	87	54756	JR3AAZ*	1	2	5	3	8	180	40M	LP
WL7E*	75	20	1	47	96	54144	UA9SMU*	1	0	34	1	35	78	40M	LP
AA4DD*	84	17	91	36	192	49032	EW1IP	3	0	6	1	9	42	40M	LP
VE2FK	84	11	186	31	281	44392	RJ3AA*	1	1	0	1	2	30	40M	HP
EV1R*	54	8	221	30	283	34260	N8TFD	1	0	0	1	1	10	40M	LP
VE7AX*	45	12	69	35	126	28980	US3IZ*	1	0	0	1	1	10	40M	HP
W5ASP	83	7	102	22	192	25828	VE9HF**	301	15	930	24	1246	124080	20M	HP
VE7NSR	64	14	69	22	147	23276	VE9AA	229	11	887	22	1127	94248	20M	HP
9A283XV*	52	11	116	22	179	21384	VA7OM*	167	15	536	23	718	69966	20M	HP
W2RZS	59	10	13	25	82	20400	VE7NZ	129	15	239	22	383	45496	20M	LP
N1IXF*	68	6	28	22	102	18832	SM5X*	105	10	234	21	349	36078	20M	HP
N2YBB	58	12	10	20	80	16800	K3TW*	134	7	120	19	261	32680	20M	HP
AI6II	51	7	1	25	59	16300	UA1AFT*	77	13	169	21	259	28728	20M	HP*
W4RM	37	2	103	21	142	12936	VA7AM	155	5	217	12	377	25008	20M	LP
PA5WT*	47	8	22	18	77	12132	CO6LC*	151	8	137	12	296	23328	20M	LP
KS0T	39	6	0	23	45	11730	VE5WI*	95	9	109	17	213	22916	20M	HP
KD0FW	44	8	0	19	52	11400	VA7IR	110	7	229	11	346	18678	20M	LP
N2BJ*	41	8	19	18	68	10944	VA3ATW*	76	8	70	12	154	12720	20M	LP
WA9AQN	26	0	545	8	571	10800	VY1XY*	86	4	52	10	142	10440	20M	HP
							9A7R*	33	5	32	16	70	7904	20M	HP

UA0KBU*	36	2	28	9	66	4104	20M	LP
AB3TM/4*	16	6	1	13	23	3666	20M	LP
PD1DX*	25	2	30	9	57	3150	20M	HP
N8WAV*	28	4	12	8	44	3072	20M	LP
VE5ZC	27	3	19	8	49	2944	20M	HP
VE7CLX	15	6	11	9	32	2628	20M	LP
S57DX*	11	5	9	11	25	2508	20M	HP*
DL5IC*	19	4	10	8	33	2320	20M	HP
IK1JJM*	18	2	45	7	65	2170	20M	LP
G4NXG/M*	16	4	0	9	20	2160	20M	LP
VE1LS*	21	2	5	8	28	2080	20M	LP
SP3BGD*	18	4	3	7	25	1862	20M	LP
UT7QL*	12	5	20	7	37	1820	20M	HP
UN9GD*	13	3	26	6	42	1452	20M	HP
VE3NLE	8	4	0	7	12	1120	20M	LP
ER3CT*	6	2	38	6	46	1056	20M	LP
F5NBX*	13	1	26	4	40	808	20M	HP
LY2AX*	7	2	45	4	54	800	20M	HP
S53M	9	1	0	7	10	770	20M	HP
SP1MHZ	10	1	3	6	14	756	20M	LP
OH2KI*	4	1	5	5	10	350	20M	HP
JH5FTY*	4	2	1	4	7	328	20M	LP
UA4NCE	8	1	0	3	9	300	20M	LP
RW1CW	1	3	0	4	4	280	20M	HP
VE9BWK	6	0	3	3	9	198	20M	LP
YO7ARZ*	3	0	27	2	30	168	20M	LP
YU1BN*	4	0	21	2	25	164	20M	LP
PA0RBA	6	0	3	2	9	132	20M	LP
DL8UVG	2	1	0	3	3	120	20M	HP*
JE8KGH	2	1	0	3	3	120	20M	LP
JE1NVD	3	1	0	2	4	100	20M	LP
VK4TT*	2	0	12	2	14	88	20M	LP
UR3PGW	1	1	5	2	7	80	20M	LP
IW2DJN	2	0	1	2	3	44	20M	HP*
EW6GF*	0	0	15	1	15	30	20M	LP
K2NV*	1	0	7	1	8	24	20M	LP
UA4FDL	0	0	12	1	12	24	20M	LP
HB9FMO*	0	1	0	1	1	20	20M	LP
JK8PBO	1	0	5	1	6	20	20M	LP
JA9CCG	1	0	4	1	5	18	20M	HP
UA9UKL	0	0	4	1	4	8	20M	LP
JA5INF/1	0	0	2	1	2	4	20M	LP
VA7JW*	126	5	262	11	393	20724	15M	HP
RV4AB*	22	4	94	12	120	5856	15M	HP
CE1UGE*	26	5	29	11	60	4598	15M	HP
EA8DA*	15	2	85	5	102	1800	15M	LP
JF2FIU*	7	4	13	5	24	880	15M	LP
PP5JA*	10	2	7	5	19	770	15M	LP
KC4ABC*	9	2	0	4	11	520	15M	LP
K5MBA*	6	2	0	4	8	400	15M	LP
JH9DRL/9	3	3	0	4	6	360	15M	LP
VE3EY*	5	0	15	4	20	320	15M	HP
NQ4K	2	2	0	4	4	240	15M	LP
SP3AZO*	4	0	10	2	14	120	15M	LP
HA1TI*	2	0	24	1	26	68	15M	LP
JD1BIA*	1	1	2	2	4	68	15M	HP*
DO1JPL*	0	0	32	1	32	64	15M	Any
EA4RCT*	2	0	0	2	2	40	15M	LP
JO1JKH	1	1	2	1	4	34	15M	LP
VE3RYA	1	1	0	1	2	30	15M	HP*
JA1XZF	0	1	0	1	1	20	15M	HP
JR2TRC	2	0	0	1	2	20	15M	LP
UR5FCM*	0	0	9	1	9	18	15M	LP
EI3CTB*	1	0	1	1	2	12	15M	LP
EU1OID*	0	0	6	1	6	12	15M	LP
BA4MY*	0	0	1	1	1	2	15M	LP
DO9MJ	0	0	1	1	1	2	15M	LP
W9QL*	168	24	83	39	275	90714	10M	LP
VE5BCS*	35	2	177	8	214	5952	10M	HP*
N5RZ*	38	4	34	7	76	3696	10M	HP
ZM2IO*	20	0	68	6	88	2016	10M	HP
VA7EU*	18	1	48	5	67	1480	10M	LP
VA3JWR*	11	3	3	3	17	528	10M	LP
N4ZT*	7	1	0	4	8	360	10M	LP
AA7CU*	4	1	0	3	5	180	10M	HP*
JH1CML*	3	1	15	2	19	160	10M	LP
UA6AK*	2	0	7	2	9	68	10M	HP
EU3AR*	6	0	0	1	6	60	10M	LP
JA7QWD	3	0	1	1	4	32	10M	HP
VE3HX*	2	0	0	2	2	40	6M	LP

Checklogs: PY7OJ, DL/PA0WYS, EA4RCT

HP* – Assumed high power

Call* – Assumed high power

Score* – Certificate winner

Score** – Category/Plaque winner

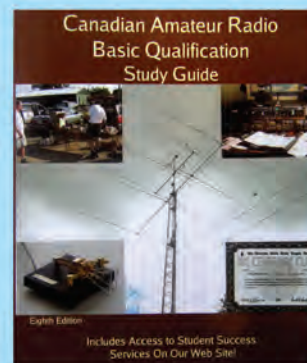
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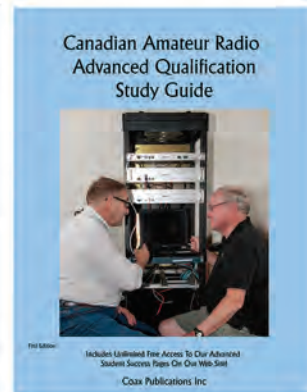


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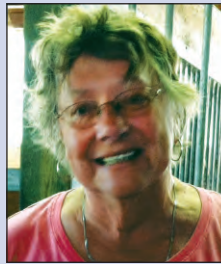
I can see from the items submitted for this column that Field Day was a very busy weekend right across the country. It is good to see so much participation as it provides for a great opportunity to show various communities just what Amateur Radio is all about and what it could be capable of in the event of an emergency.

Given the weather this summer – with floods in the western part of the country, tornadoes in Ontario and hurricanes in the east – the potential for the need of emergency communications was never far away.

Those of us in south/central Ontario also had the opportunity of attending two different venues sponsored by Radioworld. Many of the local Amateurs took the opportunity to meet the RAC President and the Ontario South Director in person and to put forward their thoughts to those who can make a difference.

Looking at my schedule, I note that October is going to be a big month. First, mark your calendars for the Simulated Emergency Test which is scheduled for October 4. In between the SET and Jamboree On The Air (JOTA) which will be held on October 18, we have Thanksgiving. I for one would give thanks if band conditions would only improve just a little bit.

– Pat Barrett, VE3RNH, National Amateur Radio Emergency Database Manager



Amateur Radio operators using VHF/UHF (both voice and data) and Marine frequencies monitor and report the position of every vessel from the time they leave Victoria Harbour until their return. There is strict protocol followed should a vessel not report.

Two major Amateur Radio stations are established. Race Control is located in the Capital Region Emergency Operations Centre in downtown Victoria. The second station is located at Sombrio Point.

The Race Control station has four operator positions and is the heart of the communication and race operation.

The Sombrio Point station is set up the same as Field Day and serves as a relay point into race control. The contour of the land prevents continuous direct communications with race control along certain parts of the various race courses. There is no power, Internet or cell service or buildings at Sombrio. Trailers and/or campers are utilized for sleeping and cooking.

Vehicles from the Peninsula Emergency Measures Organization (PEMO) and the Cowichan Valley Amateur Radio Society (CVARS) were utilized this year. The PEMO vehicle used voice for VHF/UHF and Marine, while the CVARS vehicle used digital to relay information to race control. Traffic was received from Amateur stations on vessels anchored as turning marks for the various races and from race competitors. Another interesting issue is created as the turning point vessels rolled in the Pacific swells and turned with the tide. Information always made it to Race Control though sometimes not on the first try!

In addition to these stations, Amateurs were assigned to travel with race officials throughout the weekend as well as being assigned to certain venues.

Communications spooled up slowly but by 8:30 on Saturday morning all stations were up and running and remained so until late Sunday evening. This year, there were no serious incidents although radio protocol was tested, all procedures were followed, and the event had a positive outcome.

A photo of the Sombrio Point Swiftsure Communications site. On the left is the PEMO bus whose antenna did VHF/UHF communication. The Tower handled Marine Communication and the antenna on the right handled the digital side of communications. A phone line was run between the digital and VHF/UHF stations to ensure prompt communications should they be required. Setup started on Friday and operations terminated on Sunday.

THE 2014 SWIFTSURE INTERNATIONAL YACHT RACE

Submitted by Paul Giffin, VA7MPG – Section Manager British Columbia / Yukon

On the weekend of May 24, over 80 Amateurs from central and southern Vancouver Island came together to form a communications unit. Judie Abel (Volunteer Coordinator) and Don MacLeod, VA7KOC (Radio Coordinator) looked after those who volunteered their services.

The weekend is comprised of four sailing races: the Swiftsure Lightship Classic (138 nautical miles); the Cape Flattery (102 nautical miles); the Juan de Fuca (78 nautical miles); and finally the Swiftsure Inshore Classic. This last race is the shortest and the final course is decided near race time based on weather conditions. In 2014, over 175 vessels registered to participate in these races. There is not enough space to fully describe the events of this weekend. They are well documented at <http://www.swiftsure.org>.

The races take place in the Strait of Juan de Fuca, which is 153 kilometres long and lies between the west side of Vancouver Island and the Olympic Peninsula of Washington state. Westerly winds are common and, combined with the waves from the open Pacific Ocean, the strait is rougher than the more protected waters of Puget Sound and the Strait of Georgia.

These long races, cold water and ever changing sea conditions move safety to the very top of the list. Almost everything related to the racing vessels comes back to safety and safety procedures. Each vessel is equipped with a Spot unit which must be activated hourly. Should the spot fail or a position report not be received, radio calls are made and if the spot cannot be reset the vessel must report by radio hourly with its position. Positions may be reported by latitude and longitude or by grid. Everyone involved has charts showing the grid. Radio watches must be maintained on each vessel.

The race takes place in busy commercial shipping lanes and, to assist with safety, both the Canadian and US Coast Guard monitor and broadcast ship positions and intentions. The Joint Rescue Coordination Centre at CFB Esquimalt, along with 442 Search and Rescue Squadron at CFB Comox, also partner in this event.



I have been involved in many similar type Amateur Radio events, but I have to say in my experience this was the most well organized, tightly run and professional event I have seen. There is a tremendous amount of volunteer effort put in behind the scenes that works hard to provide accurate race information and accurate communication. But most important, there is an envelope of safety that allows competitors to compete knowing if something unforeseen should occur proven plans are in place and there are people who know how to execute those plans. Congratulations to Don MacLeod and each of the volunteers who participated. To say you showed the capabilities of Amateur Radio as well as your own expertise is a huge understatement. Excellent work.

FIELD DAY IN SURREY

John Brodie, VE7XB

The Surrey Amateur Radio Club (SARC) and Surrey Emergency Program Amateur Radio (SEPAR) joined forces again this year for their 2014 Field Day effort, operating as VE7SAR. The action took place at Grandview Heights school grounds, a high-elevation site in Central Surrey, British Columbia with two competitive stations operating Class 2A plus a VHF station, GOTA HF station (VE7HME) and drop-in HF station (VA7SRY). Two Hy-Gain TH7 triband beams on 55-foot and 100-foot portable towers respectively, plus 80 metre and 40 metre dipoles suspended from tall trees on the property were all oriented broadside to azimuth 100 degrees, the direction of the most densely populated area of the United States.

A 2/6 metre yagi on a 30-foot tower was also set up in the event that some SSB, CW or RTTY activity could be found on these bands. A 16 x 20 foot tent covered with a rain tarp (yes it did rain!) provided comfortable accommodation for the operators. The two competitive stations used an Elecraft K3 and Icom IC-7600 transceiver on CW and SSB respectively while band monitoring was conducted using a Flex 6700 SDR radio.

Visitors representing three levels of government – as well as officials from the RCMP and Surrey Emergency Program – arrived on Saturday afternoon to show support for emergency communication in Surrey, and one VIP actually made a few contacts on the GOTA station. Surrey Councillor and mayoral candidate Linda Hepner provided words of support from the City of Surrey, thanked the team for their contribution to emergency communication and read the Amateur Radio Week Proclamation. MLA Marvin Hunt (member for Surrey-Panorama Ridge), a regular Field Day Visitor and

RAC PRESIDENT PARTICIPATES IN FIELD DAY IN MANITOBA

Derek Hay, VE4HAY
RAC Midwest Director

RAC President Geoff Bawden, VE4BAW, checked out the Winnipeg Amateur Radio Club's Field Day station this year.

Operating as 3A Manitoba, the station has over 72 registered operators and visitors to the site. They were barely able to get set up in time for the startup before the

skies let loose on a series of torrential downpours, along with some lightning, which meant the stations were off the air for a while until the storms cleared.



Along with President Bawden, the VE4BB Field Day station had a drop-in from two Emergency Measures government officials and the local Global TV station shot some sound bites which aired on the evening news.

The photos here and on the front cover of this issue of TCA show the triband Yagi, 6 metre and 2 metre towers.

The other tower is a 2 metre site repeater and a 2.3 GHz bridge network using Amateur Radio assigned class "A" I/P address 44.132.123. XXX network connected to the Internet via a 6 mile and 7 mile hop beaconing to cover the site.

honourary member of SARC, welcomed the team and brought greetings from the Province of BC. Just before 11 am, MLA Hunt gave the countdown to the start, marked by the sounding of an air horn and radio operations were underway. Later in the day, MP Jinny Sims (member for Surrey-Cloverdale) arrived to add support from Parliament and express thanks for the valued service provided by Amateur Radio.

The public information table hosted several dozen adult visitors and children, many of whom participated in the educational activities, which included a foxhunt, practice with phonetics and sending CW on a practice oscillator. Certificates were issued to those visitors who completed the educational tasks and several of them went on to make contacts on the GOTA station.

To keep the hungry crew motivated throughout the event, SARC's newest member Alex, IZ7FMM/VE7, prepared and served sumptuous meals of Italian cuisine on Saturday and Sunday.

Saturday's highlight was the confirmed contact with NA1SS on the US side of the International Space Station (ISS). The contact by John, VE7TI – using an IC-706 transceiver and an Arrow handheld antenna – was able to overcome intense competition from other stations in the Northwest US as the ISS made its brief overhead pass mid-afternoon. In addition to coverage of the ISS event by Global TV's evening news, the *Surrey Now* newspaper included a full-page article and photo spread on Field Day activities on July 8.

SSB operators on the competitive station were: VE7SSD, IZ7FMM, VE7XEN, VE7TI, VE7KGK and VE7NAE. CW operators were: VE7ACN, VE7FO, VA7NF and VA7XB. The drop-in station host was VE7CZV and GOTA manager was VA7JMR. Over the 24-hour operating period, VE7SAR logged a total of 1,510 contacts, 952 of which were on CW and 558 were on SSB. Take-down commenced at 11 am Sunday and was complete by 3 pm when the participants locked up the site and returned home for a well-deserved rest.

Emergency Management BC deployed two of their three portable kits for this year's Field Day event. These kits contain: medium/long range high frequency radio; commercial VHF radio; dual-band Amateur VHF/UHF; a laptop and printer with HF Pactor and VHF/UHF Packet digital communication; commercial and Amateur handheld radios; and a 12 volt AGM deep-cycle marine battery.

One of the kits was deployed in Kamloops in concert with the Kamloops Amateur Radio Club. The other kit was deployed in Victoria. To read the details of both deployments go to http://www.percs.bc.ca/?page_id=115.

Thanks to all those from the Provincial Emergency Radio Communication Service that made this possible.

FIELD DAY IN PRESCOTT-RUSSELL

Lance Peterson, VA3LP – PR-ARES Group Coordinator

After investigating a couple of sites, the Prescott-Russell ARES Group in Ontario chose the property of Jeff Dale, VA3ISP. The group started set up on Friday, June 27 with training on setting up the portable falling derrick tower designed and built by Harry, VA3ZAK. Once the Tower was up and the dipole was installed, the Tulmar inflatable Tent was installed below the dipole feedpoint.

On Saturday the equipment was brought out and installed. Testing began and there was some problems with the IC-7000, which had been tested just two weeks before, but did not seem to have very good ears. In addition, the area seemed to have a lot of noise on HF through to two metres.

After some investigation it was found that a spare battery and Genius charger – which had not been a part of the original test set up a few weeks prior – put out so much noise that it completely blocked out the HF frequencies. With the removal of the charger and a new radio installed, everything worked fine and we got back on the air for the rest of Field Day. Fun was had by all and we are looking forward to next year at the same location. There were a lot of lessons learned!

Those operating this year were: Jeff, VA3ISP, Jean, VE3OKK, Chris, VA3NKE, Lance, VA3LP (Group Coordinator), Norm, VA3NPL, Allen, VA3ONN, Dean, VA3OFF, Jim, VA3KV, Ron, VA3RRZ, George, VA3SUS, Gerard, VE3GF, André, VE2WER, Jean, VE3KJD, Carl, VA2CMB and Vero, VA2VBM.

Special thanks go to Jeff, VA3ISP and Deena for the use of their property and hospitality as well as the wonderful hamburgers and spaghetti dinner.

RCW-ARES PARTICIPATES IN TABLETOP EXERCISE

Bob Howard, VE3YX – RCW-ARES Group Coordinator

The Renfrew County West (RCW)-ARES Group participated in a tabletop exercise held by the City of Pembroke on May 27.



ARES was asked to set up in the Emergency Operations Centre (EOC) to promote visibility and to encourage Municipal Control Group (MCG) members to send messages through ARES communications during this exercise.



Richard, VA3BIX and Group Coordinator Bob, VE3YX, attended the EOC and set up 2m voice radio and packet at the back of the room.

John, VA3IOI and Rob, VA3AGN, operated the station at the Red Cross in Pembroke while Yvonne, VE3RYA, operated the home station to act as any other site that the scenario required.

Voice was used for coordination while all messages were passed by packet using Outpost. The Red Cross provided the majority of messages for us to pass. We had no problems with communications during the exercise.

Prior to the start of the exercise there were several instructional presentations. Bob was asked to do a short presentation about filling out message forms for ARES.

The EOC was located in the council chambers in the Pembroke City Hall. A new EOC is under construction in the new Ontario Provincial Police building and a permanent antenna for ARES is on the plans. During the exercise, we used a 5/8 mag mount on a baking sheet on a window ledge.

The Red Cross is evaluating sites for a reception centre and shelters. It is expected that permanent antennas will be mounted on the sites and operator locations will be established.

For more information see the newspaper article at:

<http://www.thedailyobserver.ca/2014/05/27/city-holds-disaster-ex>

RADIOWORLD HOSTS RAC AND ARES EVENTS

George Duffield, VE3WKJ – Greater Toronto Area Section Manager



Angelo Meffe, Geoff Bawden, VE4BAW, Rod Hardman, VE3RHF and Jack Summers celebrate "RAC Day at Radioworld".

The first of two major events at Radioworld was held on Saturday, May 24: "RAC Day at Radioworld". This joint promotion with Radioworld created an opportunity for RAC to speak with Amateurs and to promote the benefits of RAC membership.

RAC President Geoff Bawden, VE4BAW, was on hand along with Honourary Legal Counsel Marcel Mongeon, VE3DDD, and Ontario South Director Rod Hardman, VE3RHF. They had many opportunities to have one-on-one conversations with RAC members and non-members alike to talk about the future direction of the organization and to receive feedback as well as recommendations. In addition there were lucky draw prizes from Icom and barbecued hot dogs and drinks courtesy of Radioworld. The event was judged to be a success. The message to those in attendance was well received and I believe, appreciated. It is not often that RAC has an opportunity to deliver its message directly to the Amateur radio community in such a relaxed and friendly environment.

Four weeks later, we were back for "ARES Day at Radioworld", which provided an opportunity to enlighten ARES groups – primarily from Ontario South and the Greater Toronto Area, but with participation from Sudbury in Ontario North – on the direction ARES is heading in the immediate future.

There were five seminars presented that focused on digital means of communication, Mesh networks, VoIP over Mesh, and setting up a Mesh Backbone to provide digital communications over a wide area during an incident or disaster when normal infrastructure is either damaged or destroyed. The seminars were well attended and the feedback was extremely positive.

My thanks go again to: Angelo Meffe (Radioworld President) and Jack Summers (Radioworld Marketing Manager) for hosting both of the RAC Day and ARES Day events; Rod Hardman, VE3RHF (Ontario South Director), Ian Snow, VA3QT (Ontario South Section Manager) and Rick Harrison, VA3NV (GTA Section Emergency Coordinator) for all their assistance with the organization of the event; Barrie & South Simcoe ARES, Dufferin County ARES and Brampton/Caledon ARES for displaying their mobile communications vehicles; and to Perth County ARES for setting up a Winmor station in the parking lot at Radioworld.

My sincere thanks to the seminar presenters – Ian Snow, VA3QT, Malcolm Kendall, VE3BGD, Joe Almeida, VA3POR, Ralph Muecke, VE3VXY and Anthony Verevkin, VA3IDL – for their informative and interesting presentations.

"EASTERN SHOCKER" EXERCISE UPDATE

Norm Hagan, VE3VY – AEC Lanark/North Leeds-ARES Group

The Lanark/North Leeds (LNL)-ARES Group had a very active month of April and May for the Almonte Amateur Radio Club.

In April, the ARES group took part in a Canadian Red Cross deployment exercise in the Lanark County area called "Eastern Shocker" that was described in the Public Service / ARES column of the July-August 2014 TCA.

The Almonte ARC and other Amateur Radio groups were given advance notice of the exercise – this would not happen in a real emergency! – so that some planning and testing could take place.

The Ottawa EMRG Group, the Champlain Regional Repeater Association (covering Pembroke, Renfrew, Arnprior etc.) and the Almonte ARC ARES were subsequently able to check communication systems in the projected area of the exercise.



The Almonte ARC ARES group used its D-STAR D-RATS text/data system for the passing of traffic between the Red Cross Emergency Operations Centre and the community shelter in Carleton Place.

The Almonte ARC team was comprised of Dale, VE3XZT, Tom, VE3ELM, John, VE3IAO, Murray, VE3IFP, Rob, VE3UIX and Tim, VA3PYC. Tim devised a method, albeit manually, to translate packet and D-RATS traffic between the two systems.

The advanced exercise notice provided by the Red Cross further permitted testing and familiarization for the ARES group to enhance their messaging handling skills. In addition, limitations were identified and steps taken to mitigate any problems.

All in all the exercise went quite well and shortcomings in the procedures, such as callout etc., were identified.

Additional thanks are extended to the members of South Halton ARES, Oakville ARES, Brampton/Caledon ARES, York Region ARES and Toronto ARES for all their support on "ARES Day at Radioworld".

I also pass along my special thanks to Alan Viitala, VA3AJV (Emergency Coordinator for Sudbury) and Wayne Regaudie, VE3THN (Assistant Emergency Coordinator for Sudbury) who made the trip from Sudbury to take in the seminars, study the mobile units and to see what was new at Radioworld.

Note: please see the Radioworld ads on pages 26, 27 and on the Outside Back Cover. Thanks Jack! Congratulations on your new store in Calgary. Ed.

SAULT STE MARIE ARES GROUP PARTICIPATES IN EMERGENCY SERVICES WEEK

Brent MacMillan, VE3OTL

Emergency Coordinator for Sault Ste Marie & Area

On Saturday, May 10, the Sault Ste Marie ARES group participated in an Emergency Services display as part of Emergency Services Week, which was held in the parking lot of the local Walmart store.

As well as the ARES group, there were displays of programs and equipment from the Police, Fire, Ambulance, Military, Search and Rescue, Emergency Measures Ontario, Red Cross and Salvation Army.

With the help of the crew from Aerial Truck 1, the Fire Department's newest and probably most expensive piece of Equipment

(\$1 million), ARES members were able to install a multiband dipole between the light standards in the parking lot on the evening before the event – a job that was very easy with the 100-foot reach of the fire truck. I sure wish we could have that for Field Day!

When Saturday morning came, Mother Nature was not very cooperative but we persevered in the cold, rain and wind. Operating HF and 2 metres was certainly a test of our endurance, between operating the station, keeping the nylon gazebo from blowing away, and trying to stay warm.

A highlight for us was a display of a working Amateur television station thanks to Rolly, VE3RJ, who broadcast the event on 443 MHz. Ironically, the sun broke through the clouds and it warmed up considerably at the end of teardown later that afternoon!

It was a good event and although the weather kept a lot of people from wandering the exhibits, those who stopped by were interested to find out what the beeping was all about. Morse Code attracts them every time.

Thanks are extended to Frank, VA3MAX, Sean, VA3SWN, Richard, VA3AGR, Mark, VE3FOG, Dave, VE3DPT, Tony, VE3DWI, Dave, VE3EGC, Bob, VA3BZ, Doug, VE3DXL, Richard, VE3RLN, Rolly, VE3RJ, Bruce, VA3ZB and Brent, VE3OTL, for participating in the display, as well as the setup and teardown. Can't wait for next year!

Top photo: Mark, VE3FOG, operating 2 metres, with Doug, VE3DXL (centre) and Bruce, VA3ZB, at the HF station.

Bottom photo: Rolly, VE3RJ, operating his Amateur TV station.



RAC SIMULATED EMERGENCY TEST: CHANGED TO SATURDAY, OCTOBER 4

The RAC Simulated Emergency Test (SET) will be held on Saturday, October 4 and not on October 18 as initially reported in the July-August 2014 TCA.

This nationwide exercise is the chance to test your emergency operating skills and the readiness of your communications equipment and accessories in an emergency-like deployment.

RAC Field Organization Leaders at the Section and local levels, along with many other volunteers who are active in public service and emergency communications, are developing simulated emergency scenarios in consultation with served agencies.

To find out how you can step up and be a part of the local or Section-level activities, contact your Section Manager. You can find contact information for all RAC Section Managers on page 4 of any issue of *The Canadian Amateur*. Additional contact information may also be found on the RAC website.

The Amateur Radio Emergency Service (ARES) and the National Traffic System (NTS) and members of the RAC Field Organization will participate and practice emergency operation plans, nets and procedures.

The RAC Simulated Emergency Test is an ideal opportunity to demonstrate the capabilities of Amateur Radio. Community and public service agency officials will learn first-hand by taking a role in the SET and by providing an objective evaluation afterwards from their perspective. Have designated stations originate messages on behalf of served agencies. Test messages may be sent simulating requests for supplies. Simulated emergency messages (just like real emergency messages) should be signed by an authorized official.

Formulate your plans around a man-made or natural simulated disaster. Possible scenes could be; a flood, a serious fire, a severe ice storm, a missing person, a serious accident (automobile, bus, aircraft), a broken gas line or any other imaginable disaster. Elaborate on the situation by developing a scenario to be implemented during the SET.

In consideration of local and Section-wide schedules with agencies and many others, RAC Field Organization Leaders have the option of conducting their local or Section-wide SET on another weekend in the fall season. Check with your local RAC Field Organization leadership for the exact date in your particular area. Your help is needed and the RAC SET is a great way to get involved in emergency communications.

For more information on guidelines, preparing and reporting for a SET, forms for RAC Field Leaders are posted on the RAC website at:

<http://www.rac.ca/en/rac/public-service/ares/simulated-emergency-test/>



Bob Nash, VE3KZ
5260 14th Sideroad, RR6
Milton, ON L9T 2Y1
Tel. 905-878-7382
Email: ve3kz@rac.ca

THE SPORTS PAGE

— THE CANADIAN CONTEST SCENE

World Radiosport Team Championship 2014 Results

The team of N6MJ and KL9A has won the Gold Medal in this competition. Silver goes to the team of OM3BH and OM3GI, with Bronze to DJ5MW and DL1IAO. A Canadian competitor came in fifth: John, VE3EJ, with team-mate K9VV. Congratulations to all the other competitors from Canada: VE3DZ, VY2ZM, VE7CC and VE7SV. One can only marvel at 28 QSO totals of 4,000+ using 100 Watts and small antennas!

REGARDING CW OR DIGITAL CW AGAIN

Charles, VA7CPC, took me to task over this article in the last issue. I probably was remiss in combining the single channel code reader and Skimmer device. They obviously are very different. He was quite correct that a single channel decoder is fine for non-assisted operation, but the use of the Skimmer puts one in the Assisted category in the major contests by ARRL and CQ and several others.

There are a number of contests that do not distinguish between Assisted and Non-Assisted, such as the WAEDC and MM DX. These I have issues with when I operate in them as a single operator. I have never seen a contest sponsor forbid single channel decoders. It does not provide frequency spotting information as do Skimmer and RBN.

From the standpoint of contest activity, their use by those that need them is a very good thing; electronic "Training Wheels" if you like.

"Wetware" decoder users can provide a higher QSO rate than someone using an electronic decoder. Many operators can actually copy more than one call in a typical receiver bandwidth. I used to do this quite regularly about 40 years ago and now I still try to pull a few extra partial calls after a CQ. If you have two operators simultaneously listening to the same pileup they often copy two different calls!

THE FALL SEASON

Take a look at the size of that Contest Calendar! There is certainly something for everyone in September and October. Good luck to you all!

73, Bob, VE3KZ



SPORTS PAGE INFO:

The contest results provided in this column are courtesy of the Maritime Contest Club team:

Gary Bartlett, VE1RGB
 Scott Nichols, VE1OP

For more contest information check out these sites:

<http://www.hornucopia.com/contestcal/weeklycont.html>

<http://www.contesting.com>

<http://www.sk3bg.se/contest/>

<http://www.arrl.org/contests/calendar.html>

<http://www.arrl.org/contests/rate-sheet/about.html>

<http://www.cq-amateur-radio.com/awards.html>

http://www.arrl.org/files/file/DXCC/2013%20DXCC%20Current_a.pdf

The "Contest Calendar" at the end of this column is presented as a guide only.

RAC and TCA do not necessarily endorse or support any of the contests or the accuracy of the information.

Bands: The 30, 17 and 12m bands are never used in any contest.

WRTC – THE CHASE

Congratulations to Chris, VE3FU. He placed in the top five in North America and earns one of the Gold Medals. Other Canadian winners include Eric, VE3CR, an Assistant Judge Award, one of 25 worldwide to win the "WRTC2014 Assistant Judge" hat. Philippe, VE2FU, won one of the mousepads, one of the Bronze awards. No VEs in the Silver Medal section, but Chris and I were the fastest VEs to work all 59 – with Chris 13 minutes ahead!

This is the fifth time I have participated in the WRTC "Chase" from my home station: in 1996, 2002, 2006, 2010 and 2014. (Missed doing this in 2000 WRTC by being a competitor with VE3BMV in Slovenia!) In all five I specifically worked only WRTC stations.

Chasing in WRTC2014 was the most difficult with no direct propagation to W1 until 40m became active about eight hours into the contest. 20m CW with the old 204BA at 50 feet brought all 59 stations into my log after six hours and 32 minutes (before log checking!) using backscatter. At this time no WRTC signals had been heard on 15m or on 20m SSB.

The evening was spent on 40m and 80m; 80m using my 160m inverted vee (with an outrageous SWR) and 40m with my newly rebuilt vertical (ice-storm special). After about nine hours of actual operating, it was time for a little sleep at 04:45Z. (Perhaps a big mistake!) 40m had yielded 57 CW stations with 24 SSB. On 80m it was 49 CW and 9 SSB.

The challenge continued at 10:00Z. Much to my delight 20m SSB was open with weak but readable signals, and a quick check to 15m CW showed scatter propagation working just fine using the 5el yagi at 65 feet. Two hours later the tally was 13 20m SSB stations and 39 15m CW stations. By 12:00Z, 20m SSB stations were then S-9 plus; very different from the day before.

Surprise and random chance are useful adjuncts to hard work and persistence. I highly recommend this kind of contest activity; the epitome of old-time S&P! Practise in the QSO Parties while awaiting 2018 WRTC!

COLORADO QSO PARTY

Call	Score	Class
VE7CV	10,184	SOMIX LP
VE5KS	2,872	SOMIX LP
VE6BMX	1,941	SOMIX QRP
VE9OA	994	SOMIX LP
VE3HED	450	SOSSB LP
VE9AA	289	SOMIX HP
VE3JSO	242	SOSSB LP
VA3RKM	120	SOCW QRP
VE9ML	72	SOSSB LP
VE9HF	60	SOCW HP

ILLINOIS QSO PARTY

Call	QSO	Mult	Score
VE5KS	144	61	14,884
VE6BMX	93	53	8,533
VE3HED	45	32	1,440
VE1ZAC	23	19	874
VE9AA	17	15	465
VE3DVY	4	4	16
VE5EIS	2	2	4

QCWA FALL QSO PARTY

Call	QSO	Mult	Score	Class
VE3CD	47	6	782	CQ100 Phone
VE3XK	42	6	752	CQ100 Phone
VE3BBM	12	9	316	CW/DIG
VA3RKM	8	4	260	Mixed
VE3HKG	14	5	170	CQ100 Phone
VE3BNO	8	3	24	CQ100 Phone
VE3NPC	5	4	20	Phone

CALIFORNIA QSO PARTY

Call	QSO	Mult	Total	Class
VE3KZ	756	57	107,530	
VE3RZ	656	56	94,500	
VE3CX	604	56	82,376	
VE3KI	449	51	68,697	
VE5KS	422	57	59,793	LP
VE6WQ	382	53	51,330	LP
VA7ST	336	57	50,787	LP
VE3EY	370	53	50,376	LP
VE6AO	398	58	46,168	M/S
VE3GFN	340	51	44,727	LP
VE3OM	270	54	43,740	LP
VE4YU	298	56	40,992	LP
VA3YOJ	352	57	40,185	LP
VE3CV	312	51	39,856	LP
VE3CWU	303	51	39,780	M/S LP
VE7RE	364	53	38,584	LP
VA3ATT	270	46	37,260	LP
VE9AA	264	46	36,501	
VE7CV	221	49	32,487	LP
VA3EC	217	48	31,320	LP
VE3TW	247	50	29,350	LP
VE3SB	240	44	28,776	LP
VA3PC	215	53	22,790	M/S LP
VE3VE	213	52	22,204	LP
VE3NB	221	50	22,150	LP
VE1BVD	210	50	21,050	
VE3HED	190	52	19,760	LP
VA3GKO	175	51	17,901	LP
VO1KVT	154	47	14,476	LP
VE7RSV	133	49	13,034	LP
VE9OA	102	39	11,992	LP
VE3AD	132	43	11,352	
VE2FK	100	35	10,500	M/S
VA3KA	105	48	10,128	
VE3XD	92	36	9,990	LP
VE3RCN	103	40	9,940	LP
VE3NR	101	44	9,812	LP
VE3MGY	92	32	8,832	Q
VA3RKM	87	33	8,266	Q
VE3UZ	84	36	7,182	LP
VE6SPS1	91	39	7,098	LP
VE5BCS	87	38	6,650	LP
VE3RSA	52	31	4,836	LP
VE5DMN	66	34	4,488	LP
VE3VV	51	27	4,131	M/S
VE5EIS	50	33	3,300	LP
VY2LI	42	26	3,250	LP
VE5SDH	50	28	2,884	LP LP
VE3GYL	40	30	2,400	LP LP
VA3RJ	26	26	2,028	LP
VE3AJ	40	25	2,025	LP
VA7AQD	43	23	2,001	LP
VE9HF	29	18	1,566	M/S LP
VA3FN	22	17	1,122	LP
VE7MYA	25	21	1,050	LP
VE6BHO	26	19	988	LP
VE3KJQ	9	9	162	Q
VA2UTC	9	7	126	LP

PENNSYLVANIA QSO PARTY

Call	QSO	Mult	Score	Power
VA3ATT	112	45	10,480	L
VE3PYJ	151	61	9,611	L
VE3HED	92	47	4,324	L
VE3HEU	34	30	2,240	L
VA3RKM	25	20	2,200	Q
VE3JSO	53	34	2,002	L
VE7MYA	8	5	440	L
VE5BCS	7	7	49	L
VE9HF	6	6	36	H
VE9AA	78	78	35	L
VE6BMX	25	25	18	H
VE3EXW	11	11	11	L

NEW YORK QSO PARTY

Call	Score	Power	Mode
VE3TW	10,241	LOW	MIXED
VE3HED	2,479	LOW	SSB
VA3GKO	1,767	HIGH	SSB
VE1ZAC	680	HIGH	CW
VE6BMX	666	HIGH	MIXED
VE9AA	442	LOW	MIXED
VE3EXW	4	LOW	MIXED

WORKED ALL GERMANY CONTEST

Call	QSO	Mult	Score	Class
VE9AA	642	93	179,118	LP Mix
VE1RGB	428	114	146,376	LP CW
VE9HF	617	77	142,527	HP Mix
VA1CHP	508	88	134,112	LP Mix
VA3EC	246	74	54,612	LP Mix
VE1RSM	154	71	32,802	LP CW
VA1MM	140	68	28,560	QRP Mix
VA3ATT	137	69	28,359	LP CW
VO1BI	125	75	28,125	LP Mix
VE3TA	183	45	24,705	HP Mix
VE3OM	124	54	20,088	LP CW
VO1MP	95	59	16,815	HP CW
VE2KOT	97	56	16,296	LP CW
VE3HEU	68	36	7,344	LP Mix
VE3FJ	70	33	6,930	LP CW
VE1ZA	64	29	5,568	LP Mix
VA3GKO	48	29	4,176	LP Mix
VA3FN	31	26	2,418	LP CW
VE9OA	32	21	2,016	LP Mix
VE3CX	27	17	1,377	HP Mix
VY2LI	21	17	1,071	LP Mix
VE9PLS	21	17	1,071	HP Mix
VE3EXW	13	11	429	LP CW
VE3NRT	4	4	48	HP Mix

ALL ASIAN DX CONTEST, SSB

Call	QSO	Mult	Score	Class
VE9HF	154	104	16,016	SOAB
VE3UTT	87	60	5,220	SOAB
VE4VT	76	58	4,408	SOAB
VO1MP	60	48	2,880	SO20M
VA7ST	65	44	2,860	SOAB
VE9AA	60	44	2,640	SOAB
VE1ZA	57	45	2,565	SOAB
VA7IR	44	28	1,232	SO20M
VE4YU	26	19	494	SOAB
VE7VAW	23	15	345	SO20M
VE7JH	15	11	165	SOAB
VE5MX	15	10	150	SOAB
VY2LI	7	7	49	SOAB
VE2JR	2	1	2	SO15M
VA3DBT	1	1	1	SO20M

TENNESSEE QSO PARTY

Call	QSO	Mult	Score	Class
VE9AA	170	119	57,263	MIX HP
VE1RGB	127	103	39,543	CW LP
VE7CV	132	90	34,360	MIX LP
VE3KZ	57	48	8,084	MIX LP
VE3CX	50	42	6,600	CW LP
VE9OA	42	34	4,584	CW LP
VE3HED	31	27	1,874	SSB LP
VE2FK	24	20	1,540	CW HP
VE3PYJ	29	20	1,260	SSB LP
VA3RKM	5	4	160	CW QRP

NCJ NORTH AMERICAN OCT SPRINT, RTTY

Call	QSO	Mult	Score	Class
VE3KI	83	27	2,241	HP
VE3JI	63	24	1,512	LP
VE7BC	57	23	1,311	LP
VE2NMB	17	12	204	HP
VE9AA	12	10	120	LP

NCJ NA SEP SPRINT SSB

Call	QSO	Mult	Score	Class
VE3CX	153	36	5,508	SO HP
VE4VT	88	29	2,552	SO HP
VE3RCN	43	21	903	SO LP
VE9AA	28	17	476	SO HP
VE8GER	11	10	110	SO LP

CQWW DX RTTY											
Call	QSO	Mult	Score	Category	Power						
VE7ACN	4,086	728	7,150,416	MO	HP	VE7BGP	89	107	21,400	SO	LP
VA2UP	3,490	617	5,682,570	SO	HP	VE7IO/7	96	99	21,186	SO	LP
VE2CSI	3,703	598	5,492,630	MO	HP	VA3FN	88	104	19,136	SO	LP
VE7CC	2,431	574	3,399,228	SO	HP	VA3DF	73	80	17,200	SO	QRP
N2WQ/VE3	2,021	578	3,024,674	SO	HP	VE2DJC	68	83	14,193	SO	LP
VA2AM	2,063	564	3,020,784	SO	HP	VE3EJ	60	77	12,166	SO	LP
VE5MX	2,209	550	2,924,900	SO	HP	VE3IRR	66	63	11,088	SO	LP
VY2SS	1,975	467	2,391,507	SO	HP	VE6SPS	68	80	10,160	SO	LP
VE2GSO	1,871	431	1,998,547	SO	HP	VA7ZM	62	46	8,234	SO	LP
VA7KO	1,762	465	1,923,705	SO	HP	VE2GGY	49	58	5,278	SO	LP
VA7ST	1,550	468	1,806,012	SO	HP	VE6CZT	11	24	552	SO	LP
VE3FJB	1,669	392	1,731,072	MO	HP	WAE DX CONTEST, SSB					
VE3BZ	1,387	490	1,708,630	SO	HP	Call	QSO	Mult	QTC	Score	Class
VE3KI	1,289	481	1,556,997	SO	HP	CK3AT	2,340	444	2,381	2,096,124	SO HP
VE3BR	1,225	475	1,454,450	SO	LP	VE3DZ	1,226	323	1,229	792,965	SO LP
VE3CX	1,279	426	1,403,670	SO	HP	VE3RZ	929	288	940	538,272	SO HP
VE2FK	1,255	389	1,243,244	SO	HP	VA3YP	1,007	233	1,013	470,660	SO HP
VE2AXO	1,167	379	1,129,041	SO	LP	VE9HF	1,009	233	910	447,127	SO HP
VE3JI	1,004	444	1,123,320	SO	LP	VE3CX	761	194	778	298,566	SO HP
VE5RI	1,119	422	1,061,752	MO	HP	VE3TA	615	201	619	248,034	SO HP
VE7SQ	1,166	336	999,600	SO	HP	VE1ZA	390	217	395	170,345	SO LP
VA3XH	994	403	969,618	SO	HP	VE9OA	431	175	435	151,550	SO LP
VE6WQ	1,616	188	780,764	SO	HP	VE1ZD	399	153	407	123,318	SO LP
VE1OP	758	320	645,440	SO	HP	VE3RA	313	201	292	121,605	SO HP
VA3DX	672	376	635,816	SO	HP	VE3IAE	235	170	238	80,410	SO LP
VE4EAR	610	419	617,606	SO	HP	VA7ST	219	150	221	66,000	SO HP
VE3FH	629	373	574,793	SO	LP	VY2MP	169	139	172	47,399	SO LP
VE6CMV	738	333	573,426	SO	HP	VE4YU	180	116	179	41,644	SO LP
VE3TW	635	341	557,535	SO	LP	VE2JR	250	142	0	35,500	SO HP
VE7BC	796	279	526,752	SO	LP	VE6AO	290	116	0	33,640	SO HP
VE3DZ	702	266	520,030	SO	LP	VE9AA	112	103	110	22,866	SO HP
VE9NC	707	267	486,207	SO	LP	VE3UZ	87	94	84	16,074	SO HP
VE3XAT	446	331	369,727	SO	LP	VE2EBK	99	78	101	15,600	SO LP
VE3CV	458	314	364,554	SO	LP	VE9PLS	85	90	85	15,300	SO HP
VE3AJ	487	306	357,714	SO	LP	VE3EJ	95	124	0	11,780	SO HP
VE3MGY	710	248	355,384	SO	LP	VY2LI	53	76	51	7,904	SO LP
VE3NE	550	260	352,040	SO	HP	VA3GUY	109	64	0	6,976	SO LP
VY2MP	471	295	336,595	SO	LP	VE1SQ	97	58	0	5,626	SO LP
VA6AK	459	274	313,730	SO	LP	VE3RCN	75	74	0	5,550	SO LP
VE6AO	669	208	312,416	MO	HP	VE3AD	70	72	0	5,040	SO HP
VA3MJR	380	297	286,605	SO	LP	VE3MCF	46	36	0	1,656	SO LP
VY2LI	411	273	281,190	SO	LP	VE7FCO	38	36	0	1,368	SO LP
VE2ESU	406	269	269,269	SO	LP	VA7AM	20	26	0	520	SO LP
VE3FJ	373	239	224,182	SO	HP	VA3FN	15	20	0	300	SO LP
VE2LX	404	223	206,721	SO	LP	VA3DBT	10	24	0	240	SO LP
VE6BMX	612	146	205,568	SO	LP	VA3PCJ	12	20	0	240	SO LP
VA3DDX	338	256	204,544	SO	LP	W6NF/VE4	12	20	0	240	SO LP
VE6QO	373	224	193,312	SO	LP	VA2AFH	12	19	0	228	SO LP
VE3KAO	302	235	173,665	SO	LP	VE6SPS	9	16	0	144	SO LP
VE2FXL	368	180	172,620	SO	HP	VE9EX	4	8	0	32	SO LP
VE2NMB	339	211	156,140	SO	HP	VA3RKM	7	10	0	20	SO LP
VE5KS	466	132	150,084	SO	LP	VA3PAW	3	4	0	12	SO LP
VE3EY	308	189	148,743	SO	LP	SCANDINAVIAN ACTIVITY CONTEST, CW					
VE1ZD	300	173	138,573	SO	LP	Call	QSO	Mult	Score	Class	
VA3VF	305	180	134,460	SO	QRP	VE3DZ	427	133	91,903	SOAB LP	
VE3SS	242	225	133,200	SO	HP	VE9HF	251	119	52,241	SOAB(A)	
VE7SZ	591	102	132,090	SO	HP	VE1RGB	254	115	51,060	SOAB LP	
VE6SQ	287	203	126,672	SO	LP	VE3EJ	203	105	34,335	SOAB(A)	
VE9HF	409	102	110,466	SO	HP	VY2SS	274	92	32,936	SOAB HP	
VA7MM	208	193	96,886	SO	LP	VE3KZ	238	94	28,012	SOAB HP	
VE3IAE	332	110	95,810	SO	LP	VA7ST	130	70	15,960	SOAB HP	
VE2QV	211	178	90,958	SO	LP	VE3CX	130	72	14,832	SOAB HP	
VE3HG	214	129	73,530	SO	QRP	VE2FK	130	62	12,896	SOAB(A)	
VE5UO	199	149	72,265	SO	LP	VE3NE	99	65	10,855	SOAB(A)	
VA3SB	168	155	63,705	SO	QRP	VE9OA	101	64	9,408	SOAB LP	
CK3MCF	197	130	61,620	SO	LP	VE3FH	59	48	5,232	SOAB LP	
VE6BIR/3	154	151	59,796	SO	QRP	VE3IAE	66	43	4,902	SOAB LP	
VE3WA	130	158	58,934	SO	LP	VE3GTC	50	36	2,736	SOAB QRP	
VE9AA	204	88	48,048	SO	HP	VE4YU	48	39	2,496	SOAB LP	
VE4YU	136	116	45,008	SO	LP	VO1MP	73	34	2,482	SOAB HP	
VE7FCO	161	114	43,434	SO	LP	VE3FJ	68	30	2,040	SOAB LP	
VE3XD	193	85	40,630	SO	QRP	VE3KAO	67	30	2,010	SOAB LP	
VA7HZ	136	138	40,572	SO	HP	VE9AA	30	20	1,800	SOAB(A)	
VA7AQD	123	130	37,310	SO	LP	VE5MX	45	34	1,530	SOAB(A)	
VE3RCN	114	117	31,005	SO	LP	VE3MGY	42	32	1,408	SOAB LP	
VA2SG	106	117	30,771	SO	LP	VA7OM	26	22	1,408	SOAB HP	
VA2WA	110	98	28,616	SO	LP	VE3NZ	24	20	480	SOAB QRP	
VE3RA	109	88	24,816	SO	HP	VE3XD	20	17	340	SOAB LP	
VE3HLS	124	80	23,840	SO	QRP	VE1ZA	20	17	340	SOAB QRP	
VE3GTC	103	96	23,712	SO	QRP	VA3RKM	6	6	48	SOAB QRP	

CQ WORLDWIDE DX CONTEST, SSB

Call	QSO	Zn	Cty	Score	Category	VE5UO	656	75	167	382,602	SA LP ALL
VE3EJ	6,638	197	718	16,591,695	MULTI-ONE	VE3BVA	489	72	210	381,264	SO LP ALL
VE2IM	7,792	157	524	13,737,132	SO HP ALL	VA6AK	414	97	255	371,712	SA HP ALL
CJ3T	6,802	157	510	12,107,384	SO HP ALL	VE3XAT	426	80	243	368,220	SA LP ALL
VE6SV	5,134	181	561	9,316,552	MULTI-ONE	VE6BMX	1,271	32	96	366,208	SA LP 10M
VE3JM	5,487	149	464	9,042,976	SO HP ALL	VE7JKZ	500	81	178	359,751	SO HP ALL
VE3RA	3,872	166	585	8,099,535	SA HP ALL	VA3DX	560	63	177	351,360	SA HP ALL
VY2TT	4,090	149	490	7,145,937	SA HP ALL	VE2PZ	527	54	172	347,136	SO LP ALL
VE3CX	4,000	159	526	6,795,200	SA HP ALL	VE6WZ	1,028	34	110	336,672	SA HP 40M
VE5PV	4,761	149	454	6,746,967	MULTI-MULTI	VE6LB	418	98	207	311,405	SA HP ALL
VO1MP	3,355	143	468	5,735,457	SA HP ALL	VE3NB	439	75	182	309,685	SO LP ALL
VE3MIS	3,338	143	460	5,324,490	MULTI-MULTI	VE7BC	591	75	138	305,229	SO LP ALL
VE7GL	3,154	163	481	5,072,144	MULTI-ONE	VE3RHD	839	29	94	291,756	SA LP 10M
VE3OI	3,338	144	435	5,032,668	SO HP ALL	VE7XT	863	32	96	273,664	SA HP 10M
VA2WA	3,669	108	373	5,001,438	SA HP ALL	VE4RA	432	85	177	258,594	SO LP ALL
VE9HF	4,073	124	349	4,972,649	SO HP ALL	VE1JBC	497	33	136	244,881	SO HP ALL
VE4VT	3,753	133	396	4,862,039	SO HP ALL	VE7CV	639	35	107	240,690	SO LP 15M
VC3R	3,340	130	386	4,579,500	SO HP ALL	VE5UF	676	33	111	236,736	SO HP 10M
VE2DXY	3,642	129	425	4,542,246	MULTI-TWO	VE7SQ	351	84	183	236,028	SA HP ALL
VA2EN	2,408	127	437	3,471,984	MULTI-ONE	VE2LX	373	63	206	230,802	SA HP ALL
VE9ML	2,059	119	414	3,048,227	MULTI-TWO	VE3TU	402	65	162	228,135	SO LP ALL
VE3RZ	1,645	154	498	2,948,344	SA HP ALL	VE6FN	364	74	137	210,789	SO HP ALL
VE6AO	2,903	104	303	2,614,161	MULTI-ONE	VE6AX	413	61	126	208,692	SA LP ALL
VO2NS	2,795	98	257	2,203,130	SO HP ALL	VA3DBT	356	67	163	208,380	SO LP ALL
VE3BW	1,589	131	368	2,158,175	SO HP ALL	VA3WU	308	69	186	207,570	SO LP ALL
VA3MW	1,567	129	351	2,008,320	SA HP ALL	VE2CJR	385	64	168	201,840	SA LP ALL
VA2TG	2,438	88	242	1,958,550	MULTI-ONE	VE6KD	357	56	149	191,060	SA HP ALL
VO1MX	2,032	93	252	1,928,550	MULTI-ONE	VE5KS	523	32	103	190,755	SA LP 15M
K1JB/VE9	1,774	95	272	1,735,910	MULTI-ONE	VA7TT	655	30	93	190,650	SA LP 10M
VE3MMQ	1,175	127	408	1,724,305	SA HP ALL	VE6EX	753	26	86	187,712	SA LP 20M
VA7ST	1,680	114	276	1,650,480	SO HP ALL	VE5FX	509	33	104	186,731	SO HP 10M
VE3BR	1,410	113	332	1,636,265	SO LP ALL	VE3JDF	297	62	161	181,745	SA LP ALL
VA3SWG	1,859	79	251	1,583,010	SO LP ALL	VA2AFH	482	27	102	167,184	SA LP 15M
VE7XF	1,435	108	293	1,483,700	SO HP ALL	VE3JOC	339	59	133	152,640	SO LP ALL
VE3RM	1,133	127	358	1,432,205	MULTI-ONE	VE6SQ	440	56	105	151,179	SO LP ALL
VE9AA	2,998	35	144	1,420,365	SA HP 10M	VA3ZLT	306	52	118	142,630	SO LP ALL
CJ7RR	3,600	38	119	1,385,368	SO HP 15M	VO1BBN	252	55	154	141,284	SA LP ALL
VE3TW	1,144	100	315	1,281,935	SO LP ALL	VE3SB	302	48	125	138,054	SO LP ALL
VA6UK	1,331	106	266	1,261,080	SO HP ALL	VA3VF	305	44	118	133,326	SO QRP ALL
VE5ZX	1,254	96	291	1,149,003	MULTI-ONE	VE3RCN	312	53	119	130,204	SO LP ALL
VE6WQ	2,575	38	140	1,141,336	SA HP 15M	VE3GYL	316	43	106	127,991	SO HP ALL
VE3CV	872	110	340	1,096,200	SA LP ALL	VA2RIO	268	52	128	127,800	SO LP ALL
VE3DC	1,474	104	292	1,086,624	MULTI-MULTI	VE6CMV	426	31	92	127,059	SA HP 10M
VE7RE	1,523	92	199	996,384	SO HP ALL	VA3TIC	311	51	120	126,540	SA LP ALL
VE6JY	2,162	40	142	979,888	SA HP 20M	VA3KA	253	39	141	124,380	SA HP 15M
VA7BEC	1,167	104	246	960,400	SA LP ALL	VE7RSV	258	63	116	122,257	SO LP ALL
VE3AAQ	2,184	37	126	950,127	SO HP 15M	VE6DKC	270	52	116	121,968	SA LP ALL
VA7CRZ	1,208	102	225	924,756	SO LP ALL	VO1BB	316	45	116	119,462	SO LP ALL
VE7SAR	1,005	112	276	878,820	MULTI-TWO	VA2QR	254	55	134	119,259	SO HP ALL
VE9MY	573	112	398	820,080	SA HP ALL	VE3IQ	247	51	126	116,643	SA HP ALL
VE7WO	2,406	35	113	795,500	SO HP 20M	VE6EPK	296	47	107	115,346	SO HP ALL
VE8GER	1,528	77	149	789,644	SO LP ALL	VE8EV	653	27	60	114,318	SA HP 10M
VE7JH	2,241	33	110	782,210	SO HP 10M	VE9PLS	265	37	117	109,648	SA HP ALL
VE2BWL	723	89	279	740,048	SA LP ALL	VA2ES	272	51	103	107,954	SO LP ALL
VE3BDN	777	79	280	727,334	SO HP ALL	VE2PDT	263	43	110	103,581	SO LP ALL
VA6MA	1,861	35	128	715,733	SA HP 10M	VE3WG	252	57	115	99,760	SO LP ALL
VE7NSR	758	100	249	715,450	SA HP ALL	VE3OTL	252	51	112	99,593	SO LP ALL
VY2LI	1,034	79	194	707,616	SO HP ALL	VE3XB	204	61	120	99,550	SA HP ALL
VA3XH	706	93	265	677,694	SO HP ALL	VE1SQ	324	26	90	99,296	SO LP 20M
VE3ZZ	681	87	258	650,325	SA HP ALL	VE9OA	224	41	114	99,200	SO LP ALL
VE1ZD	809	69	219	626,688	SA LP ALL	VE3FH	308	25	83	89,964	SO LP 15M
VE9NC	633	78	258	605,472	SA LP ALL	VA3TPV	219	48	110	89,902	SO LP ALL
VE2HIT	701	76	240	596,292	SO LP ALL	VE7VAW	250	55	87	86,762	SO LP ALL
VO1TX	1,062	61	162	585,821	SO LP ALL	VE6ZC	291	53	78	81,220	SO LP ALL
VA3EC	665	81	237	564,450	SO LP ALL	CK3RHE	218	39	115	78,078	SO LP ALL
VE3CWU	672	79	231	549,320	SA LP ALL	VE3KKQ	187	61	113	77,430	SO LP ALL
VE1ZA	617	92	236	548,416	SA LP ALL	VE7FCO	209	46	92	73,002	SA LP ALL
VE7SO	1,508	36	122	547,944	SO HP 15M	VA7IR	333	27	63	69,750	SA LP 20M
VA7OM	1,429	38	129	547,092	SA HP 20M	VA1MM	199	44	94	68,586	SO QRP ALL
VE7TK	571	95	235	522,060	SA HP ALL	VA4HZ	231	57	96	67,932	SO LP ALL
VE3HG	599	71	243	516,844	SA LP ALL	VA7AQD	204	52	81	65,968	SO LP ALL
VE1JS	680	59	203	484,962	SA HP ALL	VE2SRP	196	44	91	65,205	SO LP ALL
VA7FC	1,559	32	102	484,946	SA HP 10M	VE9FX	232	41	94	63,180	SO HP ALL
VA3UG	665	71	207	480,940	SO LP ALL	VA3NW	166	48	96	62,064	SO LP ALL
VA3YP	1,200	33	109	477,404	SO HP 15M	VE3NR	209	25	82	60,241	SA LP 20M
VE6FI	1,893	29	76	468,300	SO HP 10M	VA7JW	216	28	84	60,144	SA HP 15M
VE3AD	614	70	202	462,944	SO HP ALL	VE3HED	125	100	108	59,488	SO LP ALL
VE1RSM	583	81	227	449,064	SO LP ALL	VA3AB	147	59	112	58,311	SA LP ALL
VE3UZ	568	68	198	424,536	SO HP ALL	VA5LF	160	50	84	54,538	SO LP ALL
VE4YU	580	80	186	419,216	SO LP ALL	VE7WJ	205	59	73	54,252	SO LP ALL
VE2EBK	590	70	184	416,814	SA HP ALL	VA3JLF	141	40	102	52,114	SA LP ALL
VE1OP	993	34	136	413,270	SA HP 10M	VA3FP	221	21	69	50,040	SO LP 15M
VY1EI	2,109	28	57	400,775	SO HP 10M	VE5AAD	193	24	63	46,893	SO LP 10M
VE6GCE	488	85	218	392,385	SA LP ALL	VE3LJQ	195	31	82	45,200	SO LP ALL
						VE6SPS	174	35	68	43,260	SO LP ALL

VE3ZF	306	17	52	42,918	SO HP 80M
VA7HZ	104	73	83	42,432	SA HP ALL
VE3PN	426	15	37	41,548	SO HP 160M
VA3MPF	138	36	79	40,480	SO LP ALL
VE2JR	167	33	69	39,780	SO HP ALL
VE3VV	120	36	85	37,631	SA HP ALL
VE3FTM	117	34	80	37,050	SO HP ALL
VE2EVN	180	19	54	36,354	SO LP 10M
VY2MP	154	30	66	35,616	SO LP ALL
VE1DX	141	16	59	30,150	SA HP 20M
VE6GD	124	40	57	27,742	SO HP ALL
VA3DDX	99	39	70	26,051	SA LP ALL
VE1KY	116	23	58	25,029	SO LP 15M
VE3KI	81	33	67	21,900	SO HP ALL
VE2QR	119	31	64	21,755	SO LP ALL
VE3MEW	122	21	43	20,480	SO LP 10M
VA7XB	75	27	73	19,400	SA LP ALL
VE7CKZ	81	32	50	15,744	SO LP ALL
VE3JSO	83	29	51	15,680	SO LP ALL
VE9BWK	90	28	47	14,700	SA LP ALL
VE3XD	87	18	48	14,388	SA QRP 15M
VE3DVF	71	32	50	13,202	SO LP ALL
VE7OGO	136	33	28	13,054	MULTI-ONE
VE3HTF	85	31	54	11,305	SO LP ALL
VE4RON	60	25	40	10,790	SO LP ALL
VE3NDQ	71	22	44	10,164	SO LP ALL
VE3MGY	204	10	17	9,801	SA LP 40M
VE7BGP	58	33	35	9,656	SO LP ALL
VE7QC	97	13	28	9,594	SO LP 10M
VA7AM	45	26	42	8,704	SO LP ALL
VA3PAW	61	23	37	7,560	SA LP ALL
VE7BQO	82	26	28	7,506	SO QRP ALL
VA3FN	54	28	34	6,510	SO LP ALL
VE2HAY	51	18	32	6,300	SO HP ALL
VE3DQN	55	12	33	5,625	SO QRP 10M
VE3JKN	47	17	28	4,905	SO LP ALL
VE3FU	44	13	25	4,522	SA HP 10M
VE7GRQ	43	21	24	4,185	SO LP ALL
VA3RKM	46	18	22	3,920	SO QRP ALL
VA3PCJ	43	16	23	3,900	SO QRP ALL
VE7VIB	44	15	19	3,026	SO LP 10M
VA3EEB	29	9	23	2,592	SO LP ALL
VE6FX	28	14	26	2,400	SO LP ALL
VE2PMV	24	15	23	2,394	SO LP ALL
VE3CA	30	15	19	2,346	SA LP ALL
VE5WD	23	16	23	2,223	SO LP ALL
VE6BHO	43	15	11	2,210	SO QRP ALL
VE1ZJ	30	9	19	2,100	SA HP 160M
VE6SKY	37	16	11	1,917	SA QRP ALL
VE3EXW	22	14	19	1,848	SO LP ALL
VE3NQM	21	10	18	1,708	SO LP ALL
VE9EX	22	16	18	1,598	SA LP ALL
VE9UNB	27	9	17	1,586	MULTI-ONE
VE4DRK	44	6	14	1,520	SO LP 20M
VA7ZM	24	8	14	1,452	SO LP 15M
VA1CHP	21	13	15	1,428	SA LP ALL
VE3EDY	60	6	8	1,274	SO LP 160M
VE7CXZ	31	8	5	832	SA LP ALL
VE2SVF	11	8	9	408	SO HP ALL
VE5EIS	14	8	9	374	SO LP ALL
VE5ZC	16	6	5	297	SO HP ALL
VA7GL	14	6	4	230	SO LP ALL

ARRL SEPTEMBER VHF QSO PARTY

Call	QSO	Mult	Score	Class
VE3SMA/R	335	134	99,964	R
VE3OIL/R	313	144	96,336	R
VE3ZV	256	125	56,625	B
VE7JH	254	57	19,494	B
VA3ZV	127	61	10,309	A
VE3JVG	52	29	1,856	A
VE3EG	35	21	966	Q
VE7DAY	46	15	810	A
VE3RB	35	17	714	L
VE2ASL	23	19	703	A
VE2HAY	25	18	630	A
VE3NYZ	25	15	585	A
VA3KA	25	19	475	A
VA7MM	10	5	50	A
VE7JRX	6	5	40	A
VE3RKS/R	6	6	36	RL
VE9AA	6	6	36	B
VE4VT	3	3	9	B
VE3RCN	3	2	6	3B
VE3RX	1	1	1	A

TEXAS QSO PARTY

Call	QSO	Mult	Score	Class
VE3KZ	432	215	302,140	SO CW
VE7CV	245	152	118,900	SO CW
VE3OM	204	139	95,568	SO CW
VA3ATT	81	49	12,907	SO CW
VA3GKO	104	57	12,356	SO SSB
VE3VV	26	24	1,872	SO CW
VE9ML	27	20	1,560	SO MIX
VE5BCS	29	21	1,218	SO MIX
VE3PYJ	16	15	480	SO SSB
VA3RKM	12	11	396	SO MIX QRP
VE9AA	12	11	396	SO CW
VE5EIS	1	1	2	SO SSB

WASHINGTON STATE SALMON RUN

Call	QSO	Mult	Score	Class
VE7JH	376	39	37,504	SOMIX LP
VE7CV	246	39	23,893	SOMIX LP
VE5KS	136	33	13,964	SOCW LP
VA3GKO	73	29	4,734	SOSSB LP
VE9AA	63	21	4,469	SOCW HP
VA3ATT	61	19	3,977	SOCW LP
VE3HED	63	25	3,650	SOSSB LP
VE3NR	46	20	3,260	SOCW LP
VE5BCS	51	26	2,652	SOSSB LP
VA3RKM	22	11	1,226	SOCW QRP
VE7RSV	28	14	784	SOSSB LP
VE8GER	4	2	16	SOSSB LP

NCJ NA SEP CW SPRINT

Call	QSO	Mult	Score	Class
VE3JM	283	46	13,018	SO HP
VE3KI	257	44	11,308	SO HP
VE3RZ	201	37	7,437	SO HP
VE3CX	140	35	4,900	SO HP
VE9AA	139	34	4,726	SO LP
VE3MM	58	30	1,740	SO LP
VE7JH	61	26	1,586	SO LP
VE3RCN	8	7	56	SO LP

SCANDINAVIAN ACTIVITY CONTEST, SSB

Call	QSO	Mult	Score	Class
VA6MA	291	105	41,895	M1
VE2HIT	137	80	21,040	SOAB LP
VO1BI	136	80	16,960	SOAB LP
VE9AA	124	79	12,008	SOAB HP
VE3IAE	118	60	7,800	SOAB LP
VE3HG	97	55	5,335	SOAB LP
VE3FJ	64	41	3,608	SOAB HP
VE9PLS	45	26	1,170	SOAB(A)
VE1ZD	34	21	840	SOAB LP
VA3DDX	29	19	551	SOAB LP
VA3DBT	12	8	288	SOAB LP
VE9OA	16	12	192	SOAB LP
VE9HF	7	7	63	SOAB HP
VE3TW	7	5	35	SOAB LP
VE3WBT	2	2	4	SOAB(A)

ARKANSAS QSO PARTY

Call	QSO	Mult	Score	Class
VE5KS	51	23	3,116	SOMIX LP
VE7CV	48	27	2,387	SOMIX LP
VE9AA	9	8	144	SOCW HP
VE6BMX	1	1	1	QRP
VA3RKM	1	1	1	QRP

OCEANIA DX CONTEST, SSB

Call	QSO	Mult	Score	Class
VO1FB	25	17	850	SO15 HP
VA3GKO	8	8	320	SO40 LP
VE3RA	19	10	190	SO20 HP
VA7MM	10	8	160	SO15 LP
VE1ZA	8	4	148	SOAB LP
VE2HIT	5	4	40	SO15 LP
VA3DDX	3	3	9	SO20 HP

CONTEST CALENDAR FOR SEPTEMBER, OCTOBER AND EARLY NOVEMBER 2014

Contest Name	Start	End	Web Address
Colorado QSO Party	1200z 30 Aug	0400z 31 Aug	http://www.ppraa.org/coqp/
MI QRP Labour Day Sprint	2300z 1 Sept	0300z 2 Sept	http://www.qsl.net/miqrplclub/
All Asia SSB Contest	0000z 6 Sept	2359z 7 Sept	http://www.jarl.or.jp/English/0-2.htm
Russian RTTY WW Contest	0000z 6 Sept	2359z 7 Sept	http://www.qrz.ru/contest/detail/93.html
Tennessee QSO Party	1800z 7 Sept	0300z 8 Sept	http://tnqsoparty.wordpress.com/rules/
NA Sprint CW	0000z 7 Sept	0400z 7 Sept	http://ncjweb.com/Sprint-Rules.pdf
WAE DX Contest SSB	0000z 13 Sept	2359z 14 Sept	http://www.darc.de/referate/dx/contest/waedc/en/
Arkansas QSO Party	1400z 13 Sept	0200z 14 Sept	http://www.arkanhams.org/aqp2013rules.pdf
NA Sprint SSB	0000z 14 Sept	0400z 14 Sept	http://ncjweb.com/Sprint-Rules.pdf
ARRL Sept VHF QSO Party	1800z 13 Sept	0300z 15 Sept	http://www.arrl.org/september-vhf
NAQCC Sprint	0130z 18 Sept	0330z 18 Sept	http://naqcc.info/
SAC CW	1200z 20 Sept	1200z 21 Sept	http://www.sactest.net/
ARRL 10 GHz and Up Contest	0600z 20 Sept *	2400z 21 Sept *	http://www.arrl.org/10-ghz-up
South Carolina QSO Party	1400z 20 Sept	0300z 21 Sept	http://scqso.com/rules/
Washington State Salmon Run (Pt. 1)	1600z 20 Sept	0700z 21 Sept	http://www.wwdxc.org/salmonrun/
Washington State Salmon Run (Pt. 2)	1600z 21 Sept	2359z 21 Sept	http://www.wwdxc.org/salmonrun/
CQ WW DX RTTY	0000z 29 Sept	2359z 30 Sept	http://cqww.com/
ARRL EME Contest	0000z 11 Oct	2359z 12 Oct	http://www.arrl.org/eme-contest
Texas QSO Party (Pt. 1)	1400z 27 Sept	0200z 28 Sept	http://txqp.net/
Texas QSO Party (Pt. 2)	1400z 28 Sept	2000z 28 Sept	http://txqp.net/
TARA PSK Rumble	0000z 4 Oct	2359z 4 Oct	http://www.n2ty.org/seasons/tara_rumble_rules.html
Oceania DX SSB	0800z 4 Oct	0800z 5 Oct	http://www.oceaniadxcontest.com/
California QSO Party	1600z 4 Oct	2159z 5 Oct	http://www.cqp.org/
10-10 Int.Day Sprint	0000z 10 Oct	0000z 11 Oct	http://www.ten-ten.org/
ARCI Fall QSO Party	1200z 11 Oct	2359z 12 Oct	http://www.qrparci.org/
FISTS Fall Sprint	1700z 11 Oct	2100z 11 Oct	http://www.fists.org/
SAC SSB	1200z 11 Oct	1200z 12 Oct	http://www.sactest.net/
Oceania DX CW	0800z 11 Oct	0800z 12 Oct	http://www.oceaniadxcontest.com/
Makrothen RTTY	0000z 11 Oct	1559z 12 Oct	http://home.arcor.de/waldemar.kebsch/The_Makrothen_Contest/TMC_Rules.html
Pennsylvania QSO Party (Pt. 1)	1600z 11 Oct	0500z 12 Oct	http://www.nittany-arc.net/
Pennsylvania QSO Party (Pt. 2)	1300z 12 Oct	2200z 12 Oct	http://www.nittany-arc.net/
NA Sprint RTTY	0000z 12 Oct	0400z 12 Oct	http://ncjweb.com/Sprint-Rules.pdf
NAQCC Sprint	0130z 15 Oct	0330z 15 Oct	http://naqcc.info/
JARTS WW RTTY	0000z 18 Oct	2400z 19 Oct	http://jarts.jp/rules2014.html
New York QSO Party	1400z 18 Oct	0200z 19 Oct	http://nyqp.org/wordpress/
WAG Contest	1500z 18 Oct	1459z 19 Oct	http://www.darc.de/referate/dx/contest/wag/en/
Iowa QSO Party	1400z 18 Oct	2300z 18 Oct	http://www.wa0dx.org/IAQSO/
10-10 Int. Fall Contest CW	0001z 18 Oct	2359z 19 Oct	http://www.ten-ten.org/
Stew Perry Topband Challenge	1500z 18 Oct	1500z 19 Oct	http://www.kkn.net/stew/
Illinois QSO Party	1700z 19 Oct	0100z 20 Oct	http://www.w9awe.org/index.html
CQWW DX Contest SSB	0000z 25 Oct	2400z 26 Oct	http://cqww.com/
Ukrainian DX Contest	1200z 1 Nov	1200z 2 Nov	http://www.urdx.org/
ARRL SS CW	2100z 1 Nov	0300z 3 Nov	http://www.arrl.org/sweepstakes
ARRL EME Contest	0000z 8 Nov	2359z 9 Nov	http://www.arrl.org/eme-contest
10-10 Int. Fall Contest Digital	0001z 8 Nov	2359z 9 Nov	http://www.ten-ten.org/
WAE DX Contest RTTY	0000z 8 Nov	2359z 9 Nov	http://www.darc.de/referate/dx/contest/waedc/en/
JIDX Phone Contest	0700z 8 Nov	1300z 9 Nov	http://jidx.org/jidxrule-e.html
OK/OM DX Contest, CW	1200z 8 Nov	1200z 9 Nov	http://okomdx.crk.cz/
Note: In the above chart an * indicates Local Times			

SECTION NEWS THE RAC FIELD ORGANIZATION FORUM

BRITISH COLUMBIA/YUKON:

SM Paul Giffin, VA7MPG
A/SM Ron McFadyen, VY1RM
A/SM Neil King, VA7DX
STM Al Ross, VE7WJ
SEC Fred Orsetti, VE7IO
SEC Terry Maher, VYIAK (Yukon)
OBM Bill Foster, VE7WWW
OOC: Dennis Wight, VE7IJJ
ACC: Karla Wakefield, VA7KJW
Website: www.va7mpg.ca

MAY-JUNE SM REPORT:

The Arrowsmith ARC located in Port Alberni on Vancouver Island recently acquired a new repeater system of two brand new Codan (Daniels) MT-5 repeaters, a VHF and a UHF. This equipment is to replace the existing Motorola Micor equipment at the VE7KU repeater site. They have replaced all of their repeaters over the course of the last two years. Their next project for the next year is to purchase a trailer and set it up for a mobile Emergency Operations Centre (EOC) to cover the whole Alberni-Clayoquot Regional District. This plan will be similar to what Prince George has done so they can provide communications wherever they are tasked to do so.

The Surrey Emergency Program Amateur Radio Society held their Hands On Workshop for Kids. Members of the organization set up stations to show kids how to work the radios, teach them about Amateur Radio and impress on them its importance. A great job by all involved.

Once again this year, the Yukon Amateur Radio Association (YARA) had over a dozen Amateurs on the route of the Klunene to Chilkat International Bike race. This race, from Haines Junction to Haines Alaska, was held on June 21 and runs through beautiful country with many challenges for the riders. All repeaters in the southern district of our map were in use along with a monitor in Whitehorse to call police or ambulance if necessary. There is no cellphone coverage along the route and the race goes rain or shine. This is YARA's spring event. In the fall they participate during the annual running event from Skagway to Whitehorse.

Over 80 Amateurs from central and southern Vancouver Island operated the communications system during the annual Swiftsure Race in late May (see page 46 for more information).

John Brodie, VE7XB, reports that the Surrey ARC and Surrey Emergency Program Amateur Radio (SEPAR) joined forces again this year for their 2014 Field Day effort, operating as VE7SAR (see page 47 for more information).

RAC SECTION MANAGER ELECTION NOTICE: SASKATCHEWAN

You are hereby solicited for nominating petitions pursuant to an election for Section Manager. The name of the incumbent appears on **page 4** of this issue of *The Canadian Amateur*. A petition, to be valid, must carry the signatures of 10 or more full members of RAC residing in the Section concerned. It is advisable to have more than 10. Photocopied signatures are *not* acceptable. Signatures must be on the petition. Petition forms are available from RAC Headquarters but are not required.

The form below is acceptable:

Notice to all RAC members in the Saskatchewan Section

(place & date)



RAC Chief Field Services Officer
720 Belfast Road, Suite 217
Ottawa, ON K1G 0Z5

We, the undersigned RAC Full members residing in the **Saskatchewan Section**, hereby nominate

(name & call sign)

as Section Manager for this Section for the next two-year term of office.

(signatures & call signs)

(addresses with postal codes)

A Section Manager must be a resident of his or her Section, a licensed Radio Amateur holding an Amateur operator's Certificate (or equivalent as stipulated by the *Radiocommunication Regulations*) and should always operate radio equipment only within the limits and privileges of the certificate and qualification held, and have been a RAC Full Member for a continuous term of two years at the time of nomination.

Petitions will be received at the RAC Headquarters office until 1600E on **November 10, 2014**. If only one valid petition is received, the person nominated will be declared elected. If more than one valid petition is received, a balloted election will take place. Ballots will be mailed from RAC Headquarters on or about December 1, 2014. Return of ballots by 1600E January 20, 2015 and will be counted after January 20, 2015.

A Section Manager elected thus will serve a two-year term which begins on March 1, 2015. If no valid petition is received, the Section will be resolicited in *The Canadian Amateur*.

Talk about a way to impress new Amateurs! The following dispatch was received from the President of the Langley Amateur Radio Association. "We had nine confirmed contacts which was a huge high especially for some of our newer members. Our system tracked the ISS station until they were out of range. The Mike was passed from ham to ham. First pass we got 4 contacts the next pass we got 5. Meals were provided by the club from one of our members. We did not have a lot of contacts but the setup and experience for our new hams was great. Cleanup as usual goes quicker than the setup and we all went home."

The folks in the Yukon have been busy working with their new D-STAR equipment and the digital side of things. Testing is underway and to date has been successful on a 1.2 GHz link between Haeckel Hill and Whitehorse. Further tests are underway and more information will be forthcoming in my next report.

I have heard from a few Amateurs travelling in the Yukon and Alaska who have been very impressed with the repeater system set up by the Yukon Amateur Radio Association.

If you haven't done so already please have a look at their website at <http://www.yara.ca/>.

If you are looking for an interesting website – as well as a review of the new IC-7100 from a user's perspective – may I suggest Adam Farson's, VA7OJ, website at <http://ab4oj.com>. This review was also noted in the July 2014 issue of QST.

Public Service Honour Roll

May:
VE7WJ 100; VE7GN 100;
VE7DWG 90; VE7WWW 128;
VA7MPG 300; VE7XLH 125;
and VE7RB 73.

June:
VE7XLH: 105; VE7DWG: 120;
VE7WWW: 143; VE7RB: 90;
VE7GN 245; VE7WJ 100; and
VA7MPG 237.

Bulletins:

May 52

June 125

– 73, Paul, VA7MPG

ALBERTA:

SM: Garry Jacobs, VE6CIA
SEC: Neal Sunderland, VE6NL
STM: Jack Humphries, VE6JRH
OOs: Don Momen, VE6JY and
Tom Martens, VE6TRM

MAY-JUNE SM REPORT:

Lougheed, Alberta held a Functional exercise on May 26 from 10 am to 3 pm. They tested the setup of the EOC where Bryan, VE6BYN, was on scene with copies of Radiograms and Incident Command System (ICS) message forms in hand to assist with the Amateur communications portion requested by the town.

In May, Garry, VE6FGN, was instrumental in setting up Cold Lake ARES to join the National Traffic System (NTS) as an Alberta portal.

Ray, VE6RHS, worked with the Alberta Emergency Management Agency resulting in the following announcement from them.

"The Alberta Emergency Alert program, in conjunction with the Southern Alberta Repeater Association (SARA), is pleased to announce that SARA will transmit critical Alberta Emergency Alert messages starting June 18, 2014. The Alberta Emergency Alert program provides lifesaving information through radio, television, a public website, a smartphone application, Facebook, Twitter and an RSS feed.



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The Amateur Radio community is very active in Alberta and is routinely called upon to assist emergency management organizations with site to site communications. Many Amateur operators are also trained severe weather spotters with links into Environment Canada. In addition to its existing communication channels, the Alberta Emergency Alert program recognizes that organizations like SARA can help provide even more paths to Albertans, ensuring that alerts can reach as many people as possible who may be affected by emergencies or disasters.

SARA is an Amateur Radio society with approximately 100 members who maintain over 20 repeater sites providing continuous communications coverage between major centres in the province. The system is open to any licensed Amateur operator, and SARA often gets used for provincial networks, public service events and general communications. Alert messages will be delivered on the main SARA backbone automatically, covering the Highway 2 corridor from Edmonton in the north to Vulcan County in the south."

On June 16, Amateurs from many parts of Alberta met at a hamfest in Red Deer hosted by the Central Alberta Amateur Radio Club (CAARC). Groups such as the Southern Alberta Amateur Radio Club (SARA) and Alberta RAC/ARES took advantage of the opportunity to meet and conduct their business. RAC President Geoff Bawden, VE4BAW and Director Mitch Mitchell, VE6OH, (Alberta/NWT/NU) were proud to make a presentation of RAC shirts to CAARC Club President Bob King VE6BLD and Garry Jacobs, VE6CIA, Alberta Section Manager.

Mr. Bawden made a presentation on the recent history of RAC and outlined our future. The return of RAC to financial solvency and its accomplishments since 2010 were discussed with members.

RAC would like to acknowledge and thank CAARC for the grant of \$600 to help cover Mr. Bawden's travel expenses.

Web link with photo: <http://wp.rac.ca/red-deer-hamfest-central-alberta-amateur-radio-club/>

Joe, VE5JM/VE5CEM, reports that the Sask/Alta Radio Club have a monthly EOC meeting with the City of Lloydminster, and one or two Tabletop Exercises a year with at least one full operational Exercise a year. They are awaiting the opening of the new RCMP operations building (and new EOC room) sometime this summer. They are in the process of expanding the VHF repeater system from a single repeater to a possible five repeaters linked with UHF backbone. They now have two linked operational and a third to come online before the fall and hope to have a connection to the SARA system sometime in the future. The current linked system permits them to work mobile from Maidstone, Saskatchewan to Lavoy, Alberta. At this time there is connectivity to Echolink on the linked system and also to IRLP on the standalone UHF repeater with local coverage in Lloydminster city and close in area. The UHF local repeater will have connection to the VHF system on a link up/link down basis at some point so the IRLP will be available to the VHF system. Now that Tony, VE6MVP, has moved to VE4-land I will be doing the EC function until the fall when our monthly club meetings start again. Then we will put someone in place.

Kerry, VE6GG, reports that he was tasked in mid-June to put an emergency comms plan together and have two shifts on standby as the waters started to rise. It was their first test of the Edmonton ARES Repeater paging system and it worked as designed. They were on standby for 24 hours and then stood down when it became apparent comms infrastructure would not be affected this year.

Thanks to all the ECs who reported this month. I sincerely appreciate hearing from you all.

— Garry Jacobs, VE6CIA

MANITOBA:

SM: Jan Schippers, VE4JS
STM: Jan Schippers, VE4JS
SEC: Vacant
DECs: Jeff Dovyak, VE4MBQ (Capital Region and CanWarn); Gord Snarr, VE4GLS (South-East Central Region / South-West Region); Wayne Warren, VE4WR (North Region and Special Projects); Vacant (North-Eastern Region); Vacant (North-West Region); EC Ron Willisroft, VE4QE

(Selkirk and District); Bill Boskwick VE4BOZ for RM of Grey, RM of Dufferin & Town of Carman

MAY-JUNE SM REPORT:

After a long winter, summer finally arrived and with it the severe weather. Thankfully, CanWarn runs through the summer with on call Amateurs seven days a week. The Manitoba Marathon ran on Father's Day June 15. It was cool and wet this year and the radio operators had to find ingenious ways to keep their radios and themselves dry. Another successful operation for the Marathon and for the Amateur Radio organizers and volunteers. Field Day was well attended with a fantastic media piece on Amateur Radio. The severe weather did chase us out a bit early on Sunday.

Winnipeg ARES

Jeff Dovyak, VE4MBQ
A/SEC Manitoba ARES

Thanks to Garth Blumm, VE4GWB, Richard Sheridan, VE4ESX and Garry Frankel, VE4VD, for donating some gear for our IC-2AT HT "Loaner" Kit. Thanks to Walter Bezpalko, VE4VB, for recent HT repair and to Irv Crosgrave, VE4UG, for his recent donation.

Roger Froebe, VE4RLF and Rob Iwacha, VE4RAI, have both recently resigned from Winnipeg ARES – both were fairly long-term members and they will be missed. Welcome to James (Hamish) Donaldson, VE4JDH, our newest member.

Eighteen (18) Winnipeg ARES members and affiliates provided Amateur communications for the RCAF Run on Sunday, May 25. Thanks to VA4s: RWT, VMM, AJG; VE4s: MWH, CHT, JHJ, HK, MMG, JAH, GKS, KEH, JDH, SCH, BN, KLM, SWI, DBV and CDM.

Special thanks to Craig Martin, VE4CDM, for coordinating this ARES event again; and to Bruce Johnson, VE4KQ and Wayne Warren, VE4WR, for allowing us to utilize repeaters VE4AGA and VE4EDU respectively.

This is the first event where the organizers have looked at our level of involvement, both in volunteer time and value of equipment.

Winnipeg ARES was recognized as a Silver Sponsor! See <http://rcafrun.ca/sponsors-2/>

Manitoba Marathon

The 2014 operation of the Manitoba Marathon ran from approximately 5:30 am to 1:30 pm. Ultimately, 89 Amateur volunteers were assigned to each Hospitality Station, Relay Exchange Zone, Super Run Hospitality Station, 10K Walk Hospitality Station, seven Course Vehicles (Lead Full, Lead Half, Course Closing, two Sweep Vans, two "Baggage" Vans for checked-in participant clothing), Start Line, Medical Vehicles (two Medical

Transport, two Therapy, Medical Supply and Paramedic motorcycle "Bike 9", Medical Courier Motorcycle "Bike 10"), Hospitality Net Control, Medical Net Control and Care Centre. Five non-Amateur volunteers supported our operation.

Of the 89 volunteers involved, eight were new or "newer" Amateurs that were partnered with Amateurs with previous Manitoba Marathon experience. All Amateur Radio volunteers who had Race Day assignments showed up as expected. The operation was carried out on three closed, directed Amateur Radio nets using tactical call signs. Hospitality net, Medical Net and Liaison Net. The UHF repeater built by Yori Tsuji, VE4ACX, worked great on Race Day as did the tie in to the VHF Medical Net.

The actual Amateur operation unfolded essentially as expected however there were some occurrences that should be eliminated next year if at all possible.

Traffic Totals

May: 8
June: 5

— Jan Schippers, VE4JS

ONTARIO NORTH:

SM: Al Boyd, VE3AJB
Email: ve3ajb@vianet.ca
STM: Pat Dopson, VE3HZQ
Email: dopsonp@vianet.ca
SEC: Dave Hayes, VE3JX
Email: ve3jx@bell.net
OBM: Paul Caccamo VA3PC
Email: va3pc@ciinet.org
Website: <http://ontario.racares.ca>

MAY-JUNE SM REPORT:

I want to take this opportunity to thank the members of the Ontario North Section for the hard work they do in their communities each day to promote Amateur Radio and ARES events. A special thank you to my Field managers, Dave, VE3JX as Section Emergency Coordinator, Patrick, VE3HZQ, as Section Traffic Manager and Paul, VA3PC, as Ontario North Bulletin Manager. These gentlemen do an amazing job in their Sections and I know it is appreciated by me and all the Amateurs they serve.

ONN SEC Report

Dave Hayes, VE3JX

I want to thank those who have taken the time to submit monthly reports about your ARES group activities. While regular reporting is a "requirement" of the EC job, I like to think of it as more of a camaraderie thing we do to keep us all united and encouraged as we strive towards a common goal of providing the best communications for our communities. It is encouraging to see the many fine things happening in the Section, and we want to encourage all ECs to tell their story as well.

By the time this report comes out in print, we will be looking forward to our annual Simulated Emergency Test. This planned exercise gives us the opportunity to test all aspects of our emergency response. Careful post-analysis will help us identify where we can improve. Be sure that is part of your SET, as well as SET report submission (see page 50).

Stiig Larsen, VE3LBX, DEC for the Killarney District, reports: The Manitoulin ARC participated in the annual Field Day exercise on McLean's Mountain on Manitoulin Island and, despite the humidity and mosquitoes, managed to make many contacts. The team was led by Igor Slakva, VE3ZF and accompanied by Pat Dopson, VE3HZQ, along with SM Al Boyd, VE3AJB, Russel Auxier, VE3WVA, Jim McLean, VE3LJM, Lorraine McLean, VE3LMJ, Mike Masiuk, VE3UKI, Marshall Masiuk, VE3NOD, Bob Playter, VE3TKH, Brenda Playter, VA3TKH and many others from the club. A great time was had by all.

Jim McLean, VE3LJM, EC for Manitoulin Island & North Shore further reported on local efforts in the Ontario QSO Party. "On behalf of the Executive (MARC) and its members, we would like to congratulate the team from the Manitoulin Amateur Radio Club Inc. led by Igor Slakva, VE3ZF, along with Pat Dopson, VE3HZQ, and Igor Mordick, VE3KAO, on breaking records and winning (again) the 17th Annual Ontario QSO Party 2014, held on the third full weekend of April 1800Z April 19 to 0500Z April 20, and 1200Z to 1800Z April 20. Despite the record snow and extreme low temperatures for this time of the year, the team managed to install their antennas and got right down to business and brought home the winning results."

Paul Caccamo, VA3PC, DEC for Magnetawan, reported on the assistance North Bay ARES gave for the Patrick4Life Annual Walk/Run for AIDS, a Community fundraising initiative for AIDS awareness and research. The following Amateurs were major participants in the event: VE3MAF, VE3ATK, VE3LAR, VE3YO, VE3GMG and VA3PC. Their purpose was to provide "messages to assist coordination, first/last runners/walkers location past checkpoints."

DEC for Albany District reports: Locally, the ARES group in Sault Ste Marie has been busy with establishing links with various agencies and plans to expand the utility of the local EOC site. Brent Macmillan VE3OTL, EC for the area has spearheaded ARES participation in a public exhibition of emergency response groups in May, as well as organizing the local Field Day event. There has also

been some progress made on future facilities for digital communications locally. CanWarn training also took place here at the end of May with good attendance.

Dave Campbell, VE3EGC, EC for Echo Bay & Laird Township reports: On June 2, I attended a CanWarn training course in Sault Ste. Marie along with a number of other local area Amateurs and a number of officials from other Townships to the east. (Dave was also a mainstay of the local Field Day operation manning the CW station, which turned in another stellar performance. – VE3JX)

Brent MacMillan, VE3OTL, EC for Sault Ste Marie & Area reports that on Saturday, May 10, the Sault Ste. Marie ARES group participated in an Emergency Services display as part of Emergency Services Week. As well as the ARES group, there were displays of programs and equipment from the Police, Fire, Ambulance, Military, Search and Rescue, Emergency Measures Ontario, Red Cross and Salvation Army (see page 50 for more information).

– Allan Boyd, VE3AJB

DECs reporting:

VA3s: PC
VE3s: LBX and FAL

ECs reporting:

VA3s: AJV and SPT.
VE3s: LJM, SUT, RQR and MXJ.

ONTARIO SOUTH:

SM: Ian Snow, VA3QT
SEC: Scott Carter, VE3CGN
SBM: Brad Rodriguez, VE3RHJ
STM: James Davidson, VE3TPZ
Webmaster: Carlo Salvitti, VA3CSS
Website: <http://ontario.racares.ca>

MAY-JUNE SM REPORT:

I'll begin by acknowledging the retirement of Allé Bander, VE3CWL as EC of the Stratford/Perth County ARES group after 40 years serving in the fire service and providing auxiliary communications to his area communities. Well done Allé.

Dean Dalrymple, VE3BDB has taken over as the Group Coordinator. With pleasure I also welcome Scott Carter, VE3CGN, back to the Section management team as our SEC. May you enjoy many years of good health. Welcome also to Richard Hutchinson, VE3HTU, who has taken on the Coordinator role for the (rebuilding) Guelph and Wellington County ARES group.

Radioworld hosted two very successful June events: RAC and ARES Days. I was impressed with the number of Section members who travelled extensive distances to attended RAC Day and it was a pleasure to speak with you individually. ARES Day was a joint effort between the GTA and ONS sections. I received many

compliments on the quality of the seminars which had a distinct "digital communications" flavour to them (organized by SM George Duffield, VE3WKJ) and I extend a sincere thank you to the ONS ARES members who brought mobile communications vehicles to the "show and tell": VE3TPZ and VA3JRH (Stratford/Perth County); VE3WWM and VE3BWP (Orangeville/Dufferin County); and, VA3TWP, VE3RRD and VE3RDQ (Barrie). For more information see the report on page 49.

In my last SM report, I mentioned that the ARES Training Specification Working Group had produced a final draft which was distributed to the Section Managers for comment. I can now report that the draft was approved at the June 30 CFSS/Section Manager Council meeting. This is a significant step forward and a vote of confidence in the team that has been designing a modernized training program for an ARES that is faced with both a rapidly changing operating environment – as governments implement standardized Incident Management practices – and as described by Robert Mazur, VA3ROM, in his TCA column "All Things Digital", the need for broadband digital capabilities in EOC environments.

By the time you read this report the Working Group will have begun developing the training standards for each of the 28 qualifications ranging from message runner to Certified Emergency Coordinator. Some of those qualifications reflect Incident Management System (IMS) training provided by Emergency Management Ontario, others reflect qualifications such as Industry Canada's Marine or Aeronautical radio operator qualification. In other words, a means to record a member's qualifications gained from non-ARES sources. The ARES specific qualifications are both selective and specific in nature so that the Emergency Coordinator can concentrate on those lesson packages that are applicable to the local group's mission. The end-state goal is off-the-shelf training packages. That's where you, the reader, the "subject matter expert", fits in. When the call comes please step forward to contribute your specialist knowledge.

There isn't space to acknowledge all the emails and copies of Field Day press coverage forwarded to me for information. Suffice it to say Well Done to those who "made it happen", both club Field Day and ARES media coordinators.

Activity Reports

The combined Elgin Amateur Radio Society and affiliated St Thomas / Elgin County ARES group held a joint exercise with the "Elgin Engineers", which in turn led to

meetings with municipal authorities on ARES employment and an Incident Command System briefing from the Fire Chief. Orangeville/Dufferin County group members have been working at introducing Winlink 2000 communications in their mobile COMCEN. On May 24 they set up a display in concert with the Grand Valley Duck Race. This very active group has also been conducting a Basic Qualification course. Hat's off to primary instructor Jason Miles, VE3TYG, for doing the bulk of the sessions.

The Lambton County Radio Club held their Field Day at Krall Park, Oil City with 25 members in attendance making about 300 contacts, a notable one being the International Space Station as it crossed the northern horizon. The Niagara Peninsula Club held a Field Day but no specifics were included in the monthly report. The Barrie ARC held their event at the city's South Shore Community Centre with 15 members registering. I set up with Winlink in the packet radio mode and responded to several bonus point Section Manager messages. The Bruce County ARES group visited the Port Elgin Emergency Operations Centre to verify equipment serviceability as part of their Field Day preparations.

DECs Reporting: VE3RHJ

ECs Reporting:
VE3s: VE3BTC, VE3DPG, VE3ERL, VE3LKD, VE3RTE and VE3WWM.

OBS Reporting:

VE3GIO, VE3VBR and VE3XTA.

Traffic Totals:

May: VE3RHJ 10, VE3TPZ 5.
June: VE3RHJ 11, VE3TPZ 2.

ONTARIO EAST:

SM: Michael Hickey, VE3IPC
Email: ve3ipc@gmail.com
SEC: Vacant
STM: Vacant
OBM: Brad Rodriguez, VE3RJH
Email: ve3rhj@rac.ca
Website: <http://ontario.racares.ca>

MAY-JUNE SM REPORT:

At this point we can say that Field Day is well behind us and summer is nearly over and clubs and ARES EmComm groups begin again another year of much amateur radio activity. Most of the Hamfests have occurred and there is an autumn to plan for. This is when most Amateurs look at their antenna projects and carry them out. September and October should see much public service activity normally carried out by both clubs and ARES group members.

On another note, please read the report by ONS SM Ian Snow, VA3QT where he states "that the ARES Training Specification Working Group had produced a final draft which was distributed to

the Section Managers for comment". I wish to thank all ARES groups that have submitted their monthly group activity reports.

LNL-ARES Group:
Submitted by AEC Norm, VE3VY

Almonte ARC ARES members provided communications for the Almonte Hub Hospice Walk on May 4 at the Mill of Kintail. Members were stationed along the trail to ensure no walkers were in distress. Apart from the atrocious wet weather well over \$8,000 was raised. Earlier in the year George, VE3JQW/VE3GM, generously donated his radio equipment to the AARC. Some of this will be retained by the club for members use and some will be sold to sustain the club's repeater systems. The club installed and operates a D-STAR and FM repeater system that covers most of Lanark County in Ontario. Thank you George for your generous donation.

LNL-ARES continue weekly nets on Wednesday evenings. The group's tower and equipment are being readied for installation at Westport Hill, which will provide additional UHF coverage in to Westport Village's dead spots. Discussions are underway to provide Amateur communication facilities at the Westport Legion which is to be used as an evacuation centre in the future.

Ottawa EMRG/ARES Group:
Submitted by AEC Mike, VE3FFK

The Ottawa ARES/EMRG Group held its monthly repeater test on May 7, with Dave, VE3KMW, leading Ron, VA3ACZ, Brian, VA3BGO, Kip, VA3KXM Bob, VA3QV and Mike, VE3FFK on the net. All repeaters were functioning. The digital systems were transferred from a computer operating Windows XP to a newer operating system. The changeover occurred without incident.

Three public service events also took place. The Lanark Highlands Forest Rally was held on May 2 and 3 with several members of EMRG/Ottawa ARES assisting. About 25 Amateurs participated including several from EMRG / Ottawa ARES. The CN Cycle Tour followed on May 4 with the participation of Tyler, VA3DGN, Georges, VA3LZY, Margaret, VA3VXN, Paul, VE3CPH, Wayne, VE3CZO, Mike, VE3FFK, Rick, VE3IHI, Keith, VE3KAM, Stewart, VE3SMF, Gord, VE3XGP, Glenn, VE3XRA and Alan, VE3ZTU. Special thanks to our bike mobiles, who did up to 70 kilometres. Did I mention it rained? The bike mobiles were Christine, VA3VAK, Ron, VA3ACZ, Jamie, VA3JME, Mike, VE3BUP, Jean-Marc, VE3ORL and Arthur, VA3BIT.

On May 31, there was also a new event called "Lap the Gats for Parkinson's". Although this was the

first time the event was held, there was little chaos and only one medical concern. Participants were Ron, VA3ACZ, Jamie, VA3JME, Ian, VA3OHA, Harold, VA3UNK, Christine, VA3VAK, Steve, VE2PPV, Mike, VE3FFK, Heidi, VE3HHP, Keith, VE3KAM, Leonard, VE3LPH, Richard, VE3UNW, Gord, VE3XGP, Glen, VE3XRA and John, VE3ZOV. Organizers said that having Amateurs around the course was very reassuring as many of the locations had no cellular coverage. The "one to many" aspect of an Amateur net was quite useful to them.

The usual repeater test occurred on June 4, with Dave, VE3KMW, leading Ron, VA3ACZ, Brian, VA3BGO, Tim, VA3PYC, Paul, VE3CPH and Mike, VE3FFK, on the net. All repeaters were functioning. The digital systems were also operational.

There was a Red Cross exercise with Richard, VE3UNW and Gord VE3XGP, participating.

Renfrew County West ARES-Group
Submitted by Group Coordinator Bob Howard, VE3YX

The Renfrew County West (RCW)-ARES Group participated in a Tabletop Exercise held by the City of Pembroke on May 27. ARES was asked to set up in the EOC to promote visibility and to encourage Municipal Control Group members to send messages through ARES communications (see page 48).

The Renfrew County West ARES Group reports that Yvonne, VE3RYA, George, VE3GPD, Dom, VE3DGZ and GC Bob, VE3YX, assisted the RCE-ARES group with the Association of Ontario Roads Supervisors show which was held in Arnprior on June 4 and 5. They arrived in the morning of June 3 to set up in the rain. There was an area in the registration tent where the base station was set up with 2m and HF. Everyone entering the venue had to register, then pass the station to get into the show. Unfortunately, that didn't cause many to stop and look at what was on display. RCE-ARES GC VE3IEH reports that: "We were very impressed by the support given to us by the county and Arnprior personnel. They couldn't do enough for us."

On June 18, there was a Reception Centre Setup exercise for the Deep River / Laurentian Hills Nuclear Emergency Plan. RCW-ARES operated packet and voice from the Reception Centre (Deep River Arena), Pembroke Red Cross and the EOC in the Laurentian Hills town office. Most messages were between the Reception Centre and Pembroke Red Cross. Dom, VE3DGZ and GC Bob, VE3YX, were at the Reception Centre; Rob, VA3AGN, was at Red Cross Pembroke; and Yvonne, VE3RYA and Tony, VA3HWH, were at the EOC.

ONTARIO EAST: TWO ARES DISTRICT COORDINATORS NEEDED

Wanted: Radio Amateurs with experience in ARES leadership are needed. The Ontario East Section is looking for two ARES District Coordinators.

An ARES District Coordinator is needed for the Loyalist District. There is a very strong group in Frontenac County and there exists two other groups that can benefit from District support and leadership.

An ARES District Coordinator is also needed for the Severn District, which is an area that also includes the city of Peterborough where there is a strong ARES group. This District has not had a District Coordinator for several years and would greatly benefit by having an active DEC. More groups are needed there for a stronger District where groups can help each other out in times of EmComm emergencies.

Both of these Districts are in need of someone to step up and invest some time and effort to provide the necessary leadership that will enable the groups within to work together. Establishing a functional Mutual Aid for ARES would provide for a stronger District.

As a District Coordinator you will receive my full support and guidance. Interested individuals with ARES leadership experience are asked to contact Ontario East SM Michael Hickey, VE3IPC, at VE3IPC@rac.ca or call 613-679-4472.

Michael Hickey, VE3IPC – RAC Ontario East Section Manager

RCW-ARES with the Renfrew County club held Field Day at their usual location in Riverside Park in Pembroke. They were short of people this year so they set up a 1A station instead of the usual 2A. The weather was excellent, but hot. Amongst the bouts of chit-chat and mosquito swatting, they made 195 contacts. Participants were: Yvonne, VE3RYA, Debra, VE3IEH, Richard, VA3RWH, Ken, VE2HFX, Rob, VA3AGN, John, VA3IOI, Lewis, VE3QJ, Ron, VE3ZRV, Ron, VA3KRY, Dom, VE3DGZ, Irving, VA3IRV, Laura, VA3LBS, Bill, VE3IQB and GC Bob, VE3YX.

Renfrew County East ARES-Group
Submitted by Group Coordinator Debra A. Bee, VE3IEH

Following the Hamfest in Smiths Falls on May 10, RCE-ARES GC Debra, VE3IEH, RCW-ARES GC Bob, VE3YX and LNL-ARES GC Barrie, VE3BSB, along with other interested parties, met to discuss issues of mutual interest most specifically interoperability among the three ARES groups. A proposed design for a joint linked "communications corridor" is being drafted to encompass and serve the territories of the groups and will be forwarded to all who attended. Discussion will follow along with another meeting at a later date.

There was a CanWarn storm spotter training session in Renfrew on May 21. These evenings are well presented by Peter Kimbell of Environment Canada and are interesting and somehow always manage to stay current and fresh. Group Coordinator (GC) Debra, VE3IEH, encourages everyone to take advantage of these free training sessions and to become a registered storm spotter. Given the number of recent thunderstorm and tornado watches and warnings in Renfrew County, the program seems more relevant than ever.

Amateur Radio operators and non-Amateurs are all welcome to attend.

On Sunday May 25, several members of RCE-ARES and the Champlain Regional Repeater Association (CRRA) met at the site of VE3STP repeater to do some work on the antenna tower. The work was successfully completed in spite of the swarms of blackflies and the tower is now prepared to accept the installation of the second antenna array. The CRRA Technical Director anticipates that the addition of the array should increase the repeater's signal by +/- 3dB. Another working group will be tasked with this next phase of work once a needed piece of installation equipment has been secured.

The AORS trade show was held from June 3-5 and there were 180 exhibitors of heavy equipment and supplies and services for the industry. Unfortunately, the weather was wet and cold on all three days and a rather nasty storm swept through the area on Tuesday evening just after setup was completed. RCW-ARES GC Bob, VE3YX and Yvonne, VE3RYA, managed to survive the storm in their tent trailer on site, although they wondered if it would become airborne. (My deepest thanks to both of them and to George, VE3GPD, for their dedication and commitment to the event.)

The ARES display was located beside Tourism Ontario and the AORS registration desk in a 100' x 40' tent. There were banners and display items loaned to RCE-ARES by RAC as well as information handouts and some "previously enjoyed" copies of TCA and QST as giveaways. A VHF and an HF station were operational throughout the event. Amateurs who assisted during the show travelled almost constantly among the exhibitors

both inside and outside. We were all impressed with the organization of the event and were pleased to be treated so well. My thanks to the AORS committee for the invitation to represent Amateur Radio and ARES. The show moves to Exeter, Ontario for 2015.

On June 19, RCE-ARES GC Debra, VE3IEH, Wayne, VE3JSQ and Bill, VE3TUC, met with officials of Admaston Township to assess the coverage of the recently erected antenna system at the offices on Stone Road. With Wayne remaining at the base station (temporarily installed in the council chambers), the GC and Bill were mobile through some areas of the township that might have presented some difficulty due to distance and/or terrain. The test was an overwhelming success and proved that Amateur Radio can reach all areas of the township. Admaston officials were very pleased with the results and, while there is no immediate plan to purchase Amateur equipment, agreed that we would be active participants in the event of a declared emergency. The ARES GC expressed interest in being included in any exercises planned by the township.

The Annual General Meeting for the CRRA was held on June 21 in Renfrew. Although 2014 was not an election year, it was necessary to fill a vacancy on the Executive. Rick, VA3RWH, will fill the position of second Vice-President until at least 2015.

GC Debra, VE3IEH and Rick, VA3RWH, attended at Field Day in Riverside Park in Pembroke organized by members of RCW-ARES and the Renfrew County ARC. It was a very hot and humid day and everyone was grateful to have shade courtesy of a portable garage belonging to the group. One interesting contact was made on 20m with an Amateur in Denmark.

Prescott-Russell-ARES Group *Submitted by Group Coordinator Lance, VA3LP*

The Prescott-Russell ARES Group spent most of the month preparing for Field Day. A couple of sites were investigated and the final place chosen was the property of Jeff, VA3ISP (see page 48 for a complete report).

Stormont, Dundas & Glengarry (SD&G)-ARES *Submitted by Group Coordinator Earle VE3IMP*

On June 25, the Stormont, Dundas & Glengarry (SD&G)-ARES group held its final meeting before the summer break. The meeting was sponsored by the Seaway Valley Amateur Radio Club (SVARC) from where most ARES members come from.

ARES bulletins continue to be read each Monday, at 7 pm local, on the

club's 2m net conducted on VE3SVC (147.180 MHz +). Amateurs are also asked to then check in on the VE3MTA (UHF) repeater and are occasionally asked to check in on a new ARES repeater located in Cornwall (VE3VSW) and VE3SVR in Morrisburg. This process confirms the serviceability of nearby SVARC repeater systems at least once a week should they be required by SD&G ARES.

Districts reporting:
ECs (GCs) reporting:
VE3VY, VE3FFK, VE3YX, VA3LP, VE3IMP and VE3IEH.

DECs reporting: VA3LP.

OBS reporting: VE3YX, VE3KII, VE3VY, VE3ZJS and VE3IQZ.

– 73, Michael Hickey, VE3IPC

ONTARIO GTA SECTION REPORT

SM: George Duffield, VE3WKJ
ASM: Vic Henderson, VE3FOX
ASM: James King, VE3ETZ
SEC: Rick Harrison, VA3NV
STM: James Davidson, VE3TPZ
SBM: Brad Rodriguez, VE3RHJ
Website: <http://ontario.racares.ca>

MAY-JUNE SM REPORT:

The GTA Section was an extremely busy place during the last seven weeks of spring and the first week of summer. As well as Emergency Preparedness Week, which began the period, there were many local events that brought the various ARES groups in the Section into action. These events allowed the various ECs to build and execute action plans and to bring in mutual aid support from adjacent groups whenever there was a need to involve a greater number of operators than were available for any particular event. From a Section perspective, this interaction builds collegiality and understanding of what is involved in mutual aid. I believe all the ECs found the experience to be satisfying and stimulating.

The first of our two major events was RAC Day at Radioworld. This joint promotion with Radioworld created an opportunity for RAC to speak with the average Amateur Radio operator and to extol the benefits of RAC membership. President Geoff Bawden, VE4BAW, was on hand along with Honorary Legal Counsel Marcel Mongeon, VE3DDD, and Ontario South Director Rod Hardman, VE3RHF (see page 49 for more information).

Of course, the final big event of the period was Field Day. Most of the clubs in the Section were active during Field Day. I have heard reports that the bands were not as open as other years, yet many good scores were produced.

SEC Rick Harrison, VA3NV:

I would like to extend a welcome to new Oakville EC Todd Demone, VE3LMM.

RAC FIELD ORGANIZATION REPORTS

National Traffic System (NTS) Net Reports

Net (Manager)	Sessions	QNI	QTC
May 2014:			
BCEN (VE7XLH)	31	291	56
BCYTN (VE7WJ)	31	557	59
CECA (VE7GN)	4	37	10
Laurentian	31	395	0
MEPN (VE4LB)	30	503	4
MMWXN (VA4GD)	31	532	1
MRS (VE4HK)	9	260	0
MSMN (VE4AEW)	22	541	0
OPN (VE3XRC)	31	107	21
June 2014:			
BCEN (VE7XLH)	30	270	53
BCYTN (VE7WJ)	30	476	78
CECA (VE7GN)	4	47	12
Laurentian	30	294	0
MEPN (VE4LB)	24	328	2
MMWXN (VA4GD)	30	543	3
MRS (VE4HK)	9	283	0
MSMN (VE4AEW)	21	568	0

Efforts continue to restart ARES in Durham Region. Meetings have been held, interested people identified and plans are being made. Amateur Radio operators in Durham Region who are interested in becoming part of ARES can contact me at va3nv@rac.ca.

On June 24, I attended the CanWarn training session held in the Halton Region Emergency Operations Centre. This was the first CanWarn session held in Halton in the last 20 years. The event was attended by many ARES operators as well as the Halton Community Emergency Management Coordinators and many Region of Halton employees who would be active in emergency or disaster response.

Many of the GTA ARES groups participated in Field Day. This is an excellent event for practising communications procedures, operating under difficult conditions and perfecting our abilities to set up effective stations in the field. I would encourage everyone to take part in future Field Days.

Toronto **DEC Malcolm Kendall, VE3BGD**

We have been continuing with our drive for new members to Toronto ARES and the gathering of information on the location and equipment that Amateurs have in the Toronto Area.

We held the monthly Red Cross ARES meeting that was well attended by ARES members and Red Cross volunteers. Ralph, VE3RWO, provided a demonstration of APRS with portable units. Scarborough EC Ralph, VE3VXY, then provided a demonstration of a VoIP on a Mesh network placing five units throughout the Building and giving an instant PBS phone system to the office complex.

Message to Amateur operators in the GTA area: we are looking for Amateurs who would be willing to report into an ARES net should an emergency be declared. The information collected would be passed on to the City Incident Manager. Here is a list of some of the information we would be looking for.

- 1) Do you have Hydro?
- 2) Road conditions in your local area
- 3) Weather conditions
- 4) Other information as requested by the net controllers

If you can assist, please contact Malcolm Kendall DEC for Toronto, at VE3BGD@rac.ca or VE3BGD@bell.net so we can place your name on a call list. We need to know your location and equipment available for use. Please consider participating in this initiative.

The Toronto Red Cross/ARES monthly meeting took place at the Toronto Red Cross HQ. The subject for the evening was Weather and how Environment Canada collects data from the various satellites in orbit around the earth and how Amateur operators can monitor and read the information from the satellites.

In a meeting with Red Cross Disaster management officials, it was agreed to install VHF/UHF Antennas on the Toronto HQ building and the Red Cross warehouse in Scarborough. We are also looking at having antennas and power hookups in some of the Red Cross mobile units.

It is with much sadness that we announce the passing of Len, VE3LXB, a long-time member and net controller for Toronto ARES. Len passed peacefully in his sleep on Friday, June 20. A number of

Toronto ARES members attended the Services for Len.

Brampton / Caledon ARES *EC Richard Upfield, VA3RMU*

In May, we provided communications coverage between the participants and the organizers in the annual MS Walk. Thanks to: VA3PB, VA3POR, VA3VDK, VE3WKJ, VA3RSX, VE3GKN, VE3REO, VE3VGP and VA3PAM for their help. This was also the first opportunity for us to display the capabilities of our new club trailer.

On Saturday June 14, we participated in the "CeleBrampton to kick-off Summer" event, thanks to those members who helped: VE3VBJ, VA3POR, VA3PB, VE3WKJ and VA3RMU. We ended the month with, and had a great time at the annual Field Day exercise.

Burlington ARES *EC Kevin Andrews, VA3KRA*

On May 4, EC Kevin, VA3KRA and AEC Shawn, VA3MFD, assisted with communications for the Multiple Sclerosis Super Cities 5K and 10K walks.

On May 25, members of Burlington ARES & South Halton ARES provided communications for the Tim Horton's 10K Run & 5K Walk for the Camps at Bronte Creek Provincial Park. Thanks to VE3TTO, VA3SBB, VA3PRE, VA3BL and VA3KRA.

On June 4, Burlington ARES and Hamilton CERV assisted TBRC in providing communications for the Olga's Boys & Girls Night Out 5K & 10K runs at Bayfront Park in Hamilton. Thanks to VE3TTO, VA3SBB, VE3BK, VE3DWJ, VE3DXT, VE3RTJ, VA3SEW and VA3KRA for their participation.

On June 7, Burlington ARES and South Halton ARES assisted TB Radio Communications in providing communications for the Women's Healing for Cancers 5K & 10K runs in Bronte Creek Provincial Park. Thanks to VA3KRA, VA3SBB, VA3PRE, VA3RHH and VA3MFD for their participation.

On June 21, Burlington ARES and South Halton ARES assisted TB Radio Communications with communications for the Meredith Hagan Inspiration 5K & 10K runs at Mountsberg Conservation Area. Thanks to VA3KRA, VA3SBB, VA3MFD, VA3RHH, VA3PRE, VA3DDA and VA3BL for their participation.

Georgetown/HARC ARES *EC Lyle Winfield, VA3VI*

In June, we provided onsite communications for the Highland Games in Georgetown and 10 volunteers participated. We also provided onsite communications for the Classics Against Cancer Auto Show in Georgetown and 10 volunteers participated. In addition, we conducted Field Day activities

in the Dominion Gardens public park in Georgetown, using only emergency power and we had eight participants.

Oakville ARES *EC Todd Demone, VE3LMM*

The Oakville ARC ARES team is driving activities and partnerships to develop a strong digital communications infrastructure and skill base. The focus allows us to develop useful skills in a fun and engaging way.

Rod Hardman, VE3RHF (AEC Served Agencies) conducted separate meetings with Oakville Mayor Rob Burton and Deputy Fire Chief Andy Glynn (Oakville Community Emergency Management Coordinator). Both meetings were extremely productive, outlining our infrastructure and support activities with the Town.

John McKay, VA3BL (AEC Repeaters/Infrastructure has been working with partners to our east on plans to establish permanent HSMM Mesh links from the Club repeater site on Trafalgar Road. We have made an initial install assessment, procured directional antennas / mounts and proceeded with the installation in June. This is supported by an additional three portable kits and home-based HSMM Mesh units we are testing. We are in discussions to extend this infrastructure to our direct west and possibly across the lake.

We are also proceeding with a "phase one" D-STAR repeater infrastructure this month supported with a variety of Mobile and HT D-STAR transceivers. We also have two battery powered, Raspberry Pi-based portable hotspots with enhanced antennas.

On June 14, we assisted York ARES in providing communications support for the St John Ambulance Ontario Medical First Response Competition. York EC Russell Walter, VA3WTR, made good use of the Oakville team, who responded to the call for assistance within a week.

John McKay, VA3BL (AEC Repeaters and Infrastructure, has been busy mounting antennas and installing radios for our first entry into D-STAR. A slight glitch with one of the radios has set us back, but we expect things to be up and running soon.

We also enjoyed a very productive and competitive Field Day at the end of June. Despite poor conditions on Saturday afternoon, our 2A entry fared pretty well on one of the most important (and fun) ARES dates of the year!

South Halton ARES *EC George Davis, VE3OGP*

South Halton ARES members assisted in the ARES Day event at Radioworld in June. The seminars were well attended and very informative. Thanks to VA3CQC

and VE3DDL for their help with setup/teardown. We also assisted Burlington ARES with three public service communications events.

Field Day was held at the Halton Region facility located in Oakville. The 2A station set up was well attended and everyone had a fun time. Thanks to VE3DDL, a genie boom, used to install the antennas, was donated to us for the weekend by a local business. Local/Regional councillors and members of the Halton Red Cross Disaster Management Team visited the site to observe. We were also visited by the EC and AEC from Burlington ARES. The following operators participated: VA3CQC, VA3EGG, VA3NV, VA3PRE, VA3PRS, VA3RGF, VE3DDL, VA3DHX, VE3OKZ/SQ9OKW and VE3OGP.

York Region ARES *EC Russell Walter, VA3WTR*

Four sites continue to be visited across the Region. One location is having issues with access (hospital) but at two others there are system upgrades in progress.

Work was completed on the YRARC Communication trailer and it is now deployable at any point. It is a setup workstation and not just a storage unit on wheels.

DECs reporting: VE3BGD

ECs reporting: VA3KRA, VE3OGP, VE3LMM, VA3RMU, VA3WTR

AECs reporting: VA3RJS

OBS reporting:
VE3JUJ, VE3SHM

– George Duffield, VE3WKJ

MARITIMES:

SM: Craig Seaboyer, VE1DSS

MAY-JUNE SM REPORT:

The following report was submitted by Brian Allen, VE1AZV, Field Day Chairman:

"The Halifax Amateur Radio Club participated in the annual event. A total of 71 participants attended the event at York Redoubt in Halifax. Thirty-two Amateur operators were on site for the event including five EMO operators."

I know that several other clubs and groups participated in ARRL Field Day. Thanks Brian, VE1AZV.

– Craig Seaboyer, VE1DSS

NEWFOUNDLAND AND LABRADOR:

SM: Vacant

MAY-JUNE SM REPORT:

Plans for the September 6 Hamfest in Gander are falling into place. Many thanks to Ira Stacey, VO1IRA, for the leadership he is providing with the organizing of this event.

If you are interested in contesting, six metres, the Logbook of the World, the correct way to solder

PL259s, Flex radio, meeting hams for the first time, telling tales/lies, prizes galore, music, a good striploin steak, and lots and lots more, please get your registration in ASAP to Ira to reserve your place. Accommodations have been arranged at a discounted price. There will also be a VHS tape showing of the last Hamfest 20 years ago. That will be a laugh to see the change in colour or loss of hair in some since that time. For more information please see the Coming Events on page 63.

Field Day 2014 is in the books. I'm not certain of how many Clubs operated this year; I'm only really aware of the AVRAC-SONRA collaboration on Signal Hill.

Fire and Emergency Services-Newfoundland and Labrador (FESNL) provided their emergency response trailer that was put to good use for the 2A-NL setup. Keeping it simple this year, only a couple of wire antennas were used which gave so-so results.

The focus was not on winning but on putting Amateur Radio in the public view, having a good time and, most importantly, enjoying each other's company with an unending supply of available food. Judging by that, the weekend was an absolute success! Thanks to Paul Burggraaf, VO1PRB, for providing the organizational leadership, the 20 or so Amateurs who showed up, the visitors we had and to FESNL and Parks Canada for their assistance.

On behalf of the NL Section, I want to let Keith Perry, VO1FZ, know that our thought and prayers and well wishes are with him and his family in his battle with leukemia. Keith was diagnosed with the illness only a short time ago and with treatments has been placed in remission. However, his cure is going to be with a bone marrow transplant that will have to be done at a Halifax hospital. So Keith and family stay strong; lots of friends, Amateur friends and others are pulling for you. For you younger Amateurs out there, why not contact the appropriate medical people in your area, get tested and possibly get your name on a bone marrow donor list; you may be able to help someone get cured.

My thanks go to Ira Stacey for once again providing the latest net reports.

Charlie Marsh, VO1VZ
NL Section Bulletin Editor

Cod Jigger
May 354
June 253

Evening
May 748
June 786



COMING EVENTS

THE HAMFEST AND FLEAMARKET CALENDAR

The following events are listed by date. Some dates and details are tentative. For more Hamfests and Fleamarkets please go to <http://rac.eton.ca/events/upcoming.php>

CG3C SPECIAL EVENT STATION

Celebrating the 150th Anniversary of the Charlottetown Conference

Sponsor: Robert Emerson, VE3RHE

Date/Time (UTC): Tuesday, August 26, 15:00 to Thursday, September 25 23:59.

Frequencies: All HF bands with a focus on 12m and 17m. QSL via VE3RHE (Direct or Bureau). Send QSL request and SASE (or one green stamp for USA, two green stamps for International) to Robert Emerson, VE3RHE, 6950 Summer Heights Drive, Mississauga, Ontario, Canada L5N 7E9.

This will be a paper operation. LOTW will be uploaded at a later date.

Information: ve3rhe@rac.ca

Web: www.canada-150th.ca

OTTAWA (CARP) 17TH ANNUAL HAMFEST

Sponsor: Ottawa ARC

Date: Saturday, September 6.

Time: Building Vendor setup: 7:30 am;

Tailgaters: 8 am; Indoor Fleamarket open 9 am to noon.

Place: Ottawa (Carp), Ontario; Carp Agricultural Fairgrounds (in the W. Erskine Johnston Arena at the north end of the fairgrounds), 3832 Carp Road. See the ad on page 25 of the July-August 2014 TCA for more information.

Description: The region's largest fleamarket and hamfest. All of the big Amateur Radio retailers are going to be there! Major doorprize draws! Breakfast, coffee, and lunch concession. Volunteer organizations and displays. We also have on-site Amateur Radio licence exams.

Cost: \$6 General Admission; \$12/table (plus admission) if booked before September 1 (but \$15 after that to cover extra table costs), \$5/tailgate (plus admission). Please book tables early to ensure a reservation.

Talkin: VE2CRA, 146.94-, 100 Hz

Info: Ed Sich, VE3WGO, 613-853-2281 (please leave a message).

Email contact: fleamarket@oarc.net

Web: <http://www.oarc.net/fleamarket>

NL & LABRADOR HAMFEST

Date: Saturday, September 6 to

Sunday, September 7.

Time: Saturday, 10 am until the evening.

Sunday: Amateurs will gather at a location in Gander to be advised later for breakfast prior to leaving for our trip home.

Place: Gander, Newfoundland; at the Masonic Lodge.

Description: Tables will be provided for Amateurs who wish to display swap shop items to sell. Derrick Drover, VO1YE, will DJ at the event with some live music as well those who wish to have a dance. During the day prizes will be drawn for with a selection of items donated by companies who have provided items for this event, and donations from other sources.

Cost: Registration \$10; Barbeque \$15 per person includes Prime Rib Steak, Salads, Coffee, Tea and or soft drink with dessert.

Talkin: VO1GLR 147.180+ or VO1ADE 146.880- also HF will be active on 80m 3.740 and 40m 7.085.

Info: Ira Stacey, VO1RA, vo1ira@yahoo.ca.

Everyone attending will be required to have the registration fee and meal paid for by August 23. Please send payment to: Ira Stacey, 9 Spruce Grove Avenue, Goulds, NL A1S0A5

Web: http://rac.eton.ca/events/detail.php?event_ID=1664

VHARA SWAP MEET

Sponsor: The Victoria-Haliburton Amateur Radio Association

Date: Saturday, September 13.

Time: Vendors 7 am; Public 8 am to 11 am.

Place: Lindsay, Ontario; Masonic Temple (Mill Street entrance) 10 Ridout Street, Lindsay, Ontario K9V 2A9.

Description: Coffee, refreshments, hamburgers and hot dogs available. Lots of free parking.

Cost: General Admission is Free!

Vendors: 6-foot indoor vendor (floor) space \$10; Outdoor tailgate space \$5. All vendors (indoor and outdoor tailgate) are required to supply all tables and chairs.

Talkin: 147.195 + local repeater

(VE3LNZ Repeater)

Info: Contact swapmeet@vhara.ca

Web: <http://www.vhara.ca>

MONCTON AREA AMATEUR RADIO CLUB ANNUAL FLEAMARKET

Sponsor: Moncton Area ARC

Date: Saturday, September 20.

Time: Vendors 8 am; Public 10 am.

Place: Riverview, New Brunswick; Riverview Lions Club, 701 Coverdale Road.

Cost: \$4 per person.

Talkin: 147.090+.

Info: Charles Levasseur, VE9CEL, ve9cel@rogers.com

Web: <http://www.maarc.ca>

LONDON ARC 37TH ANNUAL HAMFEST

Sponsor: London ARC

Date: Sunday, September 21.

Time: Vendors: 8 am; Public 9 am to noon.

Place: London, Ontario; Hellenic Community Centre, 133 Southdale Road West N6J 2J2.

Description: Commercial Dealers; Bring & Buy: Let LARC sell your item(s) at our club table. Special Draws: two Radioworld Gift Certificates. Free Parking; Air Conditioned; Wheelchair Accessible with Handicap Washrooms.

Cost: Admission \$8 (age 10 and up);

Tables: \$20; Extra tables \$15.

Info: LARC.hamfest@gmail.com;

Phone: 519-455-9465 (Ruth)

Make Cheque or Money Order Payable to "London Amateur Radio Club Inc" (not to Ruth Dahl) and mail to: Ruth Dahl, VE3RBO, Apt #805 700 Wonderland Rd N, London, Ontario N6H 4V3.

Talkin: VA3LON. 147.060 PL 114.8

Web: <http://www.larc.ca/index.php/hamfest-information>

COMFEST 2014

Sponsor: Delta Amateur Radio Society

Date: Sunday, September 28.

Time: Public 10 am.

Place: Delta, British Columbia; 1720 56 Street Tsawwassen; just south of highway 17.

Cost: Public \$5.

Description: Annual ham radio swap meet.

Info: Contact: gi@deltaamateurradio.com

Web: <http://www.deltaamateurradio.com>


HAMILTON ARC ANNUAL HAMFEST

Sponsor: Hamilton ARC

Date: October 4.

Time: Vendors: 7 am; Public 9 am to noon.

Place: Ancaster, Ontario; 630 Trinity Road L0R 1R0 at the Ancaster Fairgrounds, (southwest corner of highways #52 and #53, just west of Ancaster). Please take note of the new venue "Old School Building" (south of the



<http://www.mapleleafcom.com>

- VHF & UHF Mobile Antennas
- HF Monoband Vertical Antennas
- HF Multiband Dipoles (G5RV types)
- 70' 40/80m Dualband Dipole (no traps)
- 39' 40/20m Dualband Dipole (no traps)
- 6m Yagis (3 & 4-element) & Verticals
- Portable J-Pole Antennas (6m/2m/70cm)
- Zeus Lightning Surge Suppressors
- RF Connectors & Adapters
- Coaxial Cables (50, 75, 93, 125, & 36 Ohm)
- Ladder Line (300, 400, 440, & 450 Ohm)
- Antenna Wire (bare, tinned, & insulated)
- Baluns 1:1, 4:1, 6:1 (stainless hardware)
- RF Coaxial Chokes (160m thru 6m)
- Fiberglass Rods & Tubes
- Dacron Rope (3/32" to 5/16" dia.)
- Aluminum tubing (telescopic)
- Custom Antennas
- Duplexers for 70cm and 23cm

Box 1471, Everett, ON L0M 1J0

Tel: (705) 435-2819

Fax: (705) 435-2996

email: info@mapleleafcom.com

Concessions Building that has been used in previous years).

Cost: Public \$7; Tables \$12 with one chair per table. Mobile Food Vendor on site.

Info: General information Paul Fleck, VE3HTF, at ve3hft@hamiltonarc.ca; for tables / vendors contact Mardy Eedson, VE3QEE, at ve3qee@hamiltonarc.ca. Updated information will be posted as it becomes available on the website

Web: <http://www.hamiltonarc.ca/activities/harc-hamfest/>

NEW ENGLAND AMATEUR RADIO FESTIVAL (NEAR-Fest XVI)

Date: Friday, October 10 to Saturday, October 11.

Time: Gates open at 9 am Friday for sellers and buyers.

Place: Deerfield, NH, USA; The Deerfield Fairground is located on Route 43 approximately 15 miles NE of Manchester NH. GPS coordinates: N42d 5m 57.4" W71d 14m 33.5s (Lat 43.099286 Lon -71.242663).

Description: In addition to the hundreds of hams "tailgating" in the fleamarket there will be three huge buildings full of commercial vendors and dealers offering everything from the latest in radio equipment, books, accessories and who knows what else.

Cost: \$10 per person and \$10 per vehicle into the fleamarket. Camping fees are \$30 a night.

Tent sites are \$15. All overnight fees are payable to the Deerfield Fair Association.

Talkin: K1JEK/RPT 146.700 MHz (-600 PL 88.5) 146.52 direct 3.885 MHz.

Info: Contact W1RC@near-fest.com

Web: <http://www.near-fest.com/>

SARA FLEAMARKET

Sponsor: Southern Alberta Repeater Association

Date: Saturday, October 11.

Time: Vendors 10 am; Public 11 am.

Place: Calgary, Alberta; Eastside City Church, 1320 Abbeydale Drive SE.

Map: <http://411.ca/business/map/6005347>

Description: Popular SARA Flea Market with: Free Parking; Free Coffee; Snack Bar, with Famous SARA Dogs; Commercial Dealers.

Cost: Vendors & Public \$5; Tables \$10 each.

Talkin: VE6OIL (146.610 -600) No Tone

Info: For more information or to reserve tables, call Ken Oelke, VE6AFO at 403-226-5840 or ve6afo@3web.com.

Web: <http://saralink.ca>

CK3Q – 150TH ANNIVERSARY OF QUEBEC CONFERENCE

Sponsor: Robert Emerson, VE3RHE

Date: Saturday, October 11 to Monday, November 10.

Place: Mississauga, Ontario.

Description: Special Event Station CK3Q celebrating the 150th Anniversary of the Quebec Conference. Expected frequencies are 28.490, 21.290, 14.290. Hopefully I will be operating on 12m, 17m, and 40m as well. Visit our website for updates. QSL Cards will be available via VE3RHE after the event (Bureau or direct).

Info: Please contact Robert at ve3rhe@gmail.com for additional details.

Web: <http://canada-150th.ca>

OO4CLM – CANADIAN LIBERATION MARCH

Date: October 16 to November 15.

Description: This will be the 33rd edition of the Special Event Station ON4CLM in which CLM stands for Canadian Liberation March, a 33 kilometre march that Canadian troops made in 1944 from the town of Hoofdplaet in Holland to liberate our town Knokke. We have been granted the use of the special prefix OO instead of ON so that you will hear OO4CLM on air this year.

Info: For more information on the special event station (and how to obtain the award) please visit our website at <http://www.oo4clm.be>.

MONTREAL SOUTH SHORE HAMFEST

Sponsor: Club Radio Amateur Rive-Sud de Montréal

Date: Saturday, October 18.

Time: Vendors 6 am; Public 9 am.

Place: Longueuil (near downtown Montreal); Place Desaulniers, 1023 Taschereau Boulevard.

Description: The biggest Hamfest in Quebec.

Cost: Tables \$10 (individual entry(s) not included); Public \$7.

Info: Martin Fournier, VE2DNF, phone: 450-466-2810, email hamfest@ve2clm.ca

Talkin: 145.390 (-) CTCSS 103.5 MHz, VE2RSM.

Web: <http://www.ve2clm.ca/articles.php?lng=fr&pg=120>

WINNIPEG ARC FALL FLEAMARKET

Sponsor: Winnipeg ARC

Date: Sunday, October 19.

Time: Coffee and snacks: 9:30 am;

Vendors: 9:45-10:30 am; Public: 10:30 am;

Prize Draws: 11:30 am.

Place: Winnipeg, Manitoba; at the Heritage Victoria Community Club, 950 Sturgeon Road.

Description: Winnipeg's favourite gathering of old and new hams for socializing and a Fleamarket.

Cost: \$5 per person; Tables: \$5 each for WARC members, \$10 for everyone else.

2014 AGM OF BRITISH COLUMBIA COORDINATION COUNCIL

**Ed Frazer, VE7EF,
BCARCC Secretary**



The Annual General Meeting of the British Columbia Amateur Radio Coordination Council was held on Sunday, May 25 at the North Shore Emergency Management Office in North Vancouver, British Columbia and was hosted by the North Shore Amateur Radio Club. The meeting, chaired by Acting President Ian Procyk, VE7HHS, was attended by 26 delegates representing 14 Amateur Radio clubs in the Province. Special guest was RAC Treasurer Dorothy Brown, VA7DBR.

The meeting received reports from officers concerning repeater coordination issues in the past year. The number of repeaters in the province remained unchanged in the past year, about 460 in total, with the majority located in the southwest part of BC and the Okanagan Valley.

To improve the accuracy of our records of repeaters, a concerted effort was made to contact the operators of the older repeaters. Over 100 repeaters were thus updated. The Council plans to hire clerical help to assist in keeping repeater records updated in an effort to identify those repeaters that have been discontinued, thus providing spectrum for new repeater users.

Policy Chair Bill Tracey, VE7QQ, proposed revisions to the 2 metre bandplan to adapt to changes made by the Western Washington Coordination Council (WWARA). This will create several new repeater channels that can be used in British Columbia.

The AGM also received a report from Industry Canada advising that an Accredited Amateur Examiner was delisted and that several of his applicants have been retested. Industry Canada also confirmed that the changes to Tower regulations apply to business/commercial applications only.

Directors elected to serve for the next year were: Tom Dunn, VE7TD (North Shore ARC, North Vancouver); Mike Garneau, VE7CL (Kamloops ARC); Nick Gaudioso, VE7TE (Maple Ridge ARC); Ed Gorse, VE7ED (Victoria New Horizons ARC); Ian McLaughlin, VE7BST (Orchard City ARC, Kelowna, BC); Ian Procyk, VE7HHS (Coquitlam ARC) and Bill Tracey, VE7QQ (North Shore ARC, North Vancouver).

The Directors then elected the following Officers for 2014-15: President – Ian Procyk, VE7HHS; Secretary – Ed Frazer, VE7EF; Treasurer – Brian Summers, VE7JKZ; Chief Coordinator – George Merchant, VE7QH; and Policy Chair – Bill Tracey VE7QQ.

For more information on BCARCC Officers, Directors and Coordinators, repeater lists and bandplans, go to <http://www.bcarcc.org>.

Info: Contact Dick Maguire, VE4HK, 204-256-3143 or ve4hk@rac.ca for further information.

To book your table contact Ruth, VE4XYL at 204-837-6915 or ve4se@mymts.net.

Talkin: 147.390+ offset 127.3 tone.

Web: http://winnipegarc.org/flea_market.html

THE 38TH ANNUAL YORK REGION HAMFEST

Sponsor: York Region ARC

Date: Saturday, November 1.

Time: Vendors 6:30 am; Public: at 7:30 am a covered indoor area opens for the general public, with free coffee and tea. Doors open to the sales area for the general public at 9 am.

Place: Markham, Ontario; Markham Fairgrounds, 10801 McCowan Road.

Description: Vendors galore in two separate halls, plus a separate hall for admissions and refreshments. Wide aisles for scooters and wheelchairs. Exhibits and demonstrations. DXCC, WAS & VUCC Card Checking. Licensing Examinations (register with Hamfest Coordinator prior to Hamfest to ensure we bring enough exams.)

Cost: \$ 7 admission includes a ticket for the door prize draws every 20 minutes. Grand Prize tickets are \$4 each, three for \$10.

Tables \$28; all tables are 8-foot long.

Talkin: VE3YRA 145.350 MHz(-) T: 103.5 Hz.

Info: Email yrarc.hamfest@gmail.com

Web: <http://yrarc.org/index.php/our-hamfest>

MAPLE RIDGE SWAP MEET

Sponsor: Maple Ridge ARC

Date: Sunday, November 2.

Time: Vendors 7:30 am; Public 9 am; Open For pancake breakfast 8 am. Concession will remain open during the event.

Place: Pitt Meadows, British Columbia; 12460 Harris Road, one block south of the Lougheed Highway in the old REC Building

Description: Come one come all! Ham Radio & computer Swapmeet. The largest in the Fraser Valley. Great prices lots of stuff.

Cost: Tables \$20 includes 1 entry and a chance to win a radio; Public \$5 includes chance to win a radio.

Talkin: 146.800 -600 + Tone 156.7.

Info: Nick 604 465-9476 or ve7te@mrarc.net.

Web: <http://www.mrarc.net>

XM3G – 200TH ANNIVERSARY OF THE TREATY OF GHENT

Sponsor: Robert Emerson, VE3RHE

The Treaty of Ghent was signed in Ghent, Belgium and ended the War of 1812.

Date: Saturday, December 6 to Monday, January 5.

Place: Mississauga, Ontario.

Description: Expected frequencies are 28.490, 21.290, 14.290. Hopefully, I will be operating on 12m, 17m and 40m as well. Visit canada-150th.ca for updates.

Info: Please email Robert at ve3rhe@gmail.com. QSL Cards will be available via VE3RHE after the event. (Bureau or Direct)

Web: <http://www.canada-150th.ca>

RAC's repeater directory now Social on Apple and Android! QSY your CAT enabled radio using RFinderPi! The features keep coming. Look for Blackberry this fall...Get RFinder on your Apple or Android today!



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RFinder Liste des relais

WWRD-Annuaire Relais Officielle du Canada

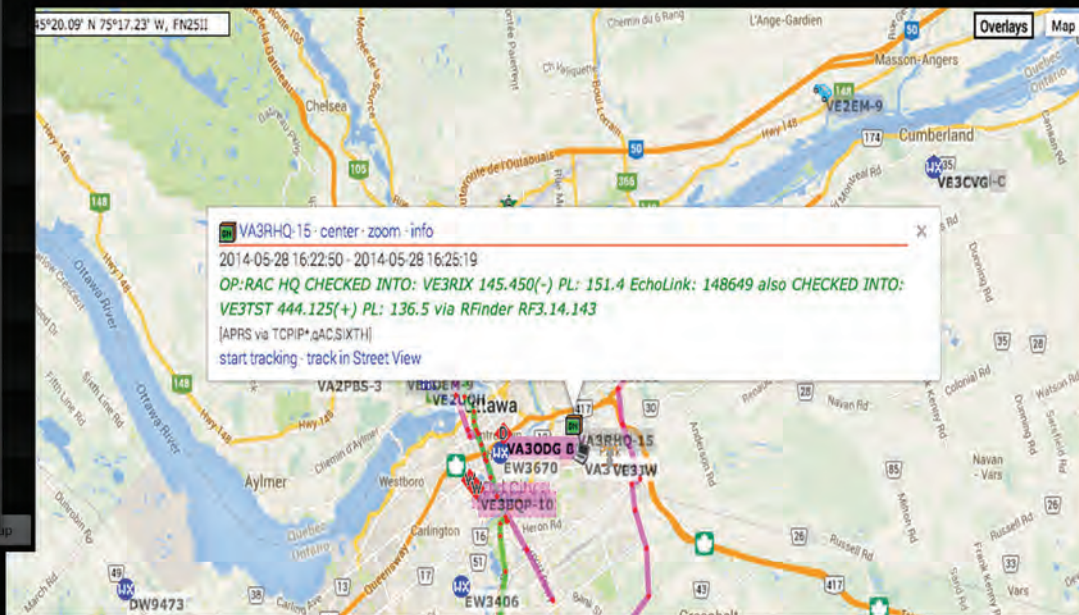
VA3OI 0 km
145.53
Mano 0.32642
VA3 145.45
VBE7 0.94773
VA3 162.55
VE2CI 4.44
VA3 4.7018
DSTA 146.74
VA3
VE2RI 5.9458
VA3
147.10
Dist: Freq: 146
VA3
224
VA3
VE3
4.45

Update Info Request Delete

VA3OFS
Ottawa, ON, CA
Dist: 0.0mi [N]
Freq: **449.950**
Off(+/-): **-5.0**
PL: 136.5
DCS: 0
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IRLP:
EchoLink:

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